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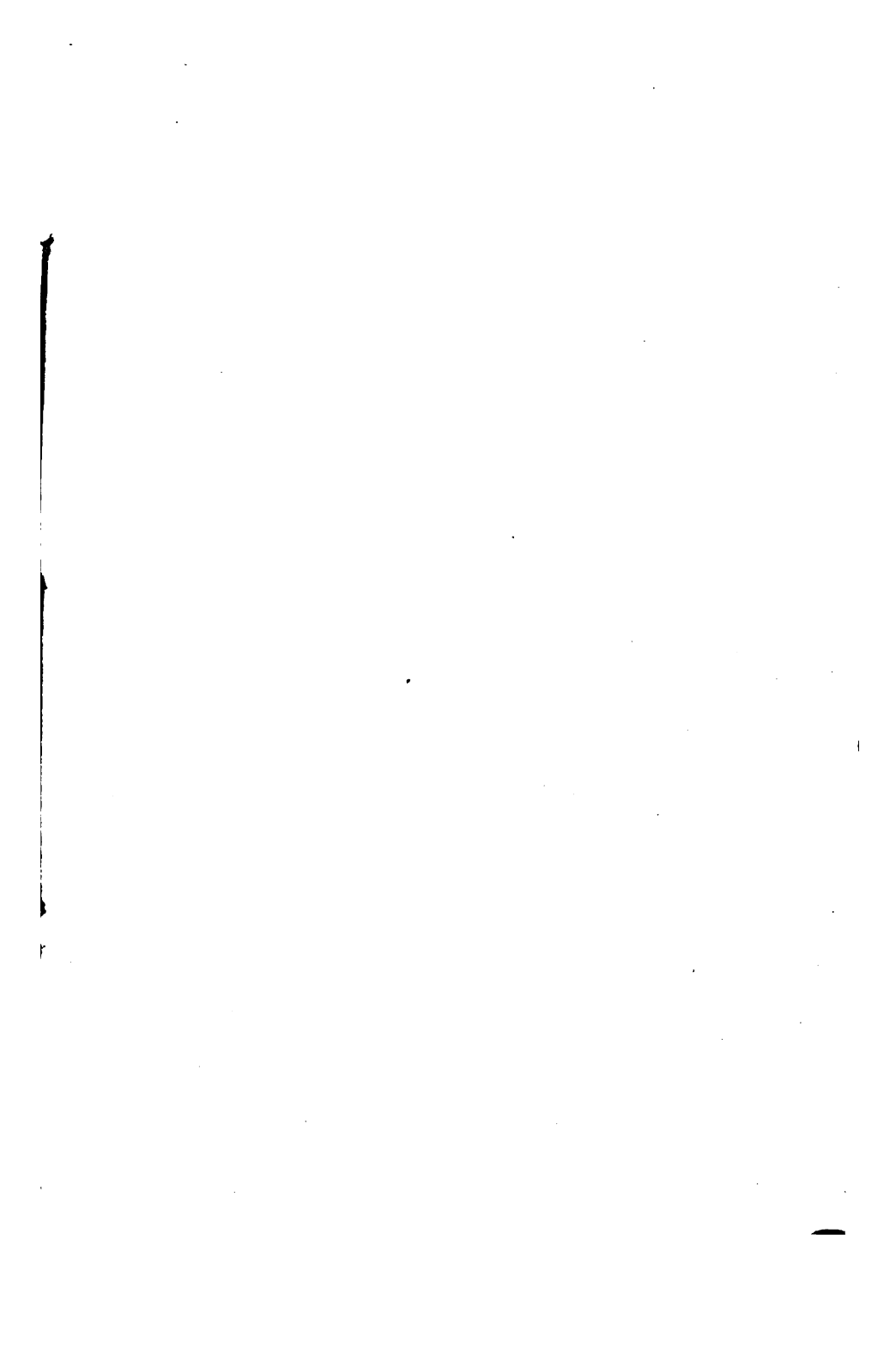
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A. H. Hollister,
Madison,

President Pharmaceutical Association, 1894-95.

PROCEEDINGS
—OF THE—
WISCONSIN
PHARMACEUTICAL ASSOCIATION

—HELD AT—
Sheboygan, August 13, 14, 15, 1895.

Fifteenth Annual Meeting

—AND THE—
ROLL OF MEMBERS,

**Together with the Thirteenth Annual Report of the
Wisconsin State Board of Pharmacy.**

**JANESVILLE, WIS.
GEO. E. TANBERG, PRINTER.
1895.**

1. The first part of the paper is devoted to a general discussion of the problem of the existence of a solution of the system of equations

$$\frac{dx}{dt} = f(x, y, z), \quad \frac{dy}{dt} = g(x, y, z), \quad \frac{dz}{dt} = h(x, y, z),$$

where f, g, h are continuous functions of x, y, z .

It is shown that if the functions f, g, h satisfy certain conditions, then the system of equations has a solution in the neighborhood of the point (x_0, y_0, z_0) for which $f(x_0, y_0, z_0) = 0, g(x_0, y_0, z_0) = 0, h(x_0, y_0, z_0) = 0$.

The second part of the paper is devoted to a study of the stability of the solutions of the system of equations. It is shown that if the functions f, g, h satisfy certain conditions, then the solutions of the system of equations are stable in the neighborhood of the point (x_0, y_0, z_0) for which $f(x_0, y_0, z_0) = 0, g(x_0, y_0, z_0) = 0, h(x_0, y_0, z_0) = 0$.

The third part of the paper is devoted to a study of the asymptotic behavior of the solutions of the system of equations. It is shown that if the functions f, g, h satisfy certain conditions, then the solutions of the system of equations approach zero as $t \rightarrow \infty$.

The fourth part of the paper is devoted to a study of the periodic solutions of the system of equations. It is shown that if the functions f, g, h satisfy certain conditions, then the system of equations has a periodic solution.

The fifth part of the paper is devoted to a study of the bifurcation of solutions of the system of equations.

It is shown that if the functions f, g, h satisfy certain conditions, then the system of equations has a bifurcation of solutions at the point (x_0, y_0, z_0) for which $f(x_0, y_0, z_0) = 0, g(x_0, y_0, z_0) = 0, h(x_0, y_0, z_0) = 0$.

The sixth part of the paper is devoted to a study of the global properties of the solutions of the system of equations. It is shown that if the functions f, g, h satisfy certain conditions, then the solutions of the system of equations are bounded for all t .

The seventh part of the paper is devoted to a study of the qualitative properties of the solutions of the system of equations. It is shown that if the functions f, g, h satisfy certain conditions, then the solutions of the system of equations are unique.

IMPORTANT MEMORANDA.

When you wish to know anything about arrearages of dues or when you desire to pay dues, write to W. P. CLARKE, Treasurer, Milton.

If you wish to become a member, or obtain membership for another, or for general information regarding the Association, or the obtaining of certificates for membership, address E. B. HEIMSTREET, Secretary, Janesville.

In case of the death of a member coming to your notice, advise the Secretary of the occurrence, giving such particulars as it may be desirable to publish.

If you find your name spelled wrong, or your address erroneously given, notify the Secretary at once.

If at any time during the year you change your place of business, advise the Secretary.

The Wisconsin Pharmaceutical Association has nothing to do with the enforcement of the laws regulating Pharmacy. All communications made in compliance with the law, or applications for registration under the law, must be sent to the State Board of Pharmacy, of which body E. B. HEIMSTREET, of Janesville, is Secretary.

If you desire information about the department of Pharmacy of the State University, write to PROF. EDWARD KREMERS, Madison.

In case you know of any cutting in prices, or parties selling drugs illegally, send word to E. H. PLAYTER, Eau Claire.

If you have doubt about the purity of a drug or drugs, send them to A. F. MENGES, Madison.

If you wish information in regard to space for exhibit, etc., write to local secretary, DAVID A. TAYLOR, Stevens Point.

The next Annual meeting will be held at Stevens Point, August 11th, 12th, 13th, 1896.

Officers and Committees for 1895-96.

OFFICERS.

President, F. W. THIEMAN.....	Sheboygan
First Vice-President, H. G. RUENZEL.....	Milwaukee
Second Vice-President, JOS. HAMMEL.....	Medford
Secretary, E. B. HEIMSTREET.....	Janesville
Treasurer, W. P. CLARKE.....	Milton
Local Secretary, D. A. TAYLOR.....	Stevens Point

COMMITTEES.

Executive Committee.

Adam Conrath, Milwaukee.
H. B. Allen, Richland Center.
A. A. Mayers, Madison.
J. A. Lightner, Randolph.
E. M. Wright, Prairie du Chien.

Legislative Committee.

H. C. Schranck, Milwaukee.
H. O. Frank, Milwaukee.
Chas. R. Bechmann, Fountain City.
A. F. Menges, Madison.
E. B. Heimstreet, Janesville.

National Legislation.

E. D. Pardee, Wausau.
Chas Pfeiffer, Plymouth.
R. J. Washburne, Palmyra.

Entertainment.

David Taylor, Stevens Point.
R. H. Meiding, Stevens Point.
E. Sumner, Madison.
Max Zaegel, Sheboygan.

Adulteration.

A. F. Menges, Madison, 1900.
L. C. Urban, Milwaukee, 1897.
H. T. Eberle, Watertown, 1898.
Louis Meyer, Sheboygan, 1899.
A. S. Mitchell, Madison, 1896.
State Chemist.

Trade Interests.

E. H. Playter, Eau Claire.
B. D. Merrill, Superior.
J. C. Huber, Fond du Lac.
R. M. Dadd, Milwaukee.
E. Gieseler, Racine.

Queries.

Conrad Engsberg, Lake Mills.
H. Emmerich, Milwaukee.
W. W. Albers, Wausau.

Delegates to American Pharmaceutical Association, 1896.

H. C. Schranck, Milwaukee.
Fred Esau, Milwaukee.
Carl Henkel, Madison.

To Illinois Pharmaceutical Association.

O. L. Woodward, Clinton.
Will B. Lyon, Elkhorn.

Minnesota Pharmaceutical Association.

T. L. Menkey, Hudson.
A. E. Draper, West Superior.

Wholesale Drug Association.

A. C. Morrison, Milwaukee.

State Medical Association.

A. H. Hollister, Madison.
C. M. Smith, M. D., Evansville.
Geo. Jenkins, M. D., Kilbourne City.

OFFICERS.

PRESIDENTS.

<i>John A. Dadd</i> , Milwaukee.....	1880-81	<i>Fred Robinson</i> , Kenosha.....	1881-82
<i>George Bauman</i> , Oshkosh.....	1882-88	<i>Edwin Summer</i> , Madison.....	1882-84
<i>George Howard</i> , LaCrosse.....	1884-85	<i>F. F. Prentice</i> , Janesville.....	1885-96
<i>F. M. Givens</i> , Fond du Lac.....	1886-87	<i>R. D. Pulford</i> , Mineral Point.....	1887-88
<i>J. C. Huber</i> , Fond du Lac.....	1888-89	<i>W. M. Edwards</i> , Portage.....	188-90
<i>R. Sauerhering</i> , Mayville.....	1890-91	<i>C. Widule</i> , Milwaukee.....	1891-92
<i>Henry Rollman</i> , Chilton.....	1892-93	<i>E. D. Pardee</i> , Wausau.....	1892-94
<i>A. H. Hollister</i> , Madison.....	1894-95	<i>F. W. Thieman</i> , Sheboygan.....	1895-96

VICE-PRESIDENTS.

<i>A. H. Hollister</i> , Madison.....	1880-81	<i>J. C. Huber</i> , Fond du Lac.....	1880-81
<i>G. W. Wright</i> , Platteville.....	1880-81	<i>George Howard</i> , LaCrosse.....	1880-81
<i>John Bauman</i> , Oshkosh.....	1880-81	<i>H. B. Allen</i> , Richland Center.....	1880-81
<i>John Robinson</i> , Green Bay.....	1880-81	<i>Adam Conrath</i> , Milwaukee.....	1881-82
<i>F. F. Prentice</i> , Janesville.....	1881-82	<i>Fred Wolfrum</i> , West Bend.....	1881-82
<i>W. G. Spence</i> , Mauston.....	1881-82	<i>R. Sauerhering</i> , Mayville.....	1881-82
<i>J. A. Farnham</i> , Fennimore.....	1881-82	<i>A. Trayser</i> , New London.....	1881-82
<i>George Bauman</i> , Oshkosh.....	1891-2	<i>R. D. Pulford</i> , Mineral Point.....	1882-83
<i>T. J. Hooper</i> , Platteville.....	1882-83	<i>J. C. Huber</i> , Fond du Lac.....	1883-84
<i>H. J. Goddard</i> , Chippewa Falls.....	1884-85	<i>James Morrison</i> , New London.....	1884-85
<i>H. C. Schranck</i> , Milwaukee.....	1885-86	<i>W. M. Edwards</i> , Portage.....	1886-87
<i>John Kienth</i> , Milwaukee.....	1887-88	<i>A. C. Whitman</i> , Hurley.....	1887-88
<i>Henry Rollman</i> , Chilton.....	1888-89	<i>W. W. Isham</i> , Elkhorn.....	1888-89
<i>Jas. Morrison</i> , New Lisbon.....	1889-90	<i>J. W. Coon</i> , M. D., Tomahawk.....	1889-90
<i>C. S. Little</i> , Appleton.....	1890-91	<i>J. M. Evans</i> , M. D., Evansville.....	1890-91
<i>Peter Beule</i> , Beaver Dam.....	1891-92	<i>Adam Conrath</i> , Milwaukee.....	1892-93
<i>Chas. Pfeifer</i> , Plymouth.....	1891-92	<i>E. A. Horn</i> , Oshkosh.....	1892-93
<i>Jas. T. Dana</i> , Fond du Lac.....	1892-94	<i>Jos. Hammel</i> , Medford.....	1892-94
<i>C. L. Gieseler</i> , Racine.....	1894-95	<i>A. E. Draper</i> , West Superior.....	1894-95
<i>B. G. Ruenzel</i> , Milwaukee.....	1895-96	<i>Jos. Hammel</i> , Medford.....	1895-96

TREASURERS.

<i>A. J. Roberts</i> , Janesville.....	1880-82	<i>W. P. Clarke</i> , Milton.....	1882-96
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LOCAL SECRETARIES.

<i>Henry C. Schranck</i> , Milwaukee.....	1880-81	<i>L. A. Schultz</i> , Oshkosh.....	1881-82
<i>J. F. W. Schmidt</i> , Oshkosh.....	1881-82	<i>T. H. Spence</i> , LaCrosse.....	1882-83
<i>Charles H. Avery</i> , Madison.....	1883-84	<i>F. F. Prentice</i> , Janesville.....	1884-85
<i>F. M. Givens</i> , Fond du Lac.....	1885-86	<i>Adam Conrath</i> , Milwaukee.....	1886-87
<i>Charles F. Yates</i> , Palmyra.....	1887-88	<i>W. M. Edwards</i> , Portage.....	1888-89
<i>C. S. Little</i> , Appleton.....	1889-90	<i>John Kienth</i> , Milwaukee.....	1890-91
<i>Jas. T. Dana</i> , Fond du Lac.....	1892-93	<i>Charles L. Gieseler</i> , Racine.....	1892-94
<i>F. W. Thieman</i> , Sheboygan.....	1894-95	<i>D. A. Taylor</i> , Stevens Point.....	1895-96

Permanent Secretary.

<i>E. B. Heimstreet</i> , Janesville.....	1880-96
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Wisconsin Board of Pharmacy.

H. C. SCHRANCK, President.....Milwaukee
 CHAS. R. BECHMANN.....Fountain City
 H. O. FRANK.....Milwaukee
 A. F. MENGES.....Madison
 E. B. HELMSTREET, Secretary and Treasurer.....Janesville

Nominations and Appointments since 1882.

DATE.	NOMINATED.	APPOINTED.	TERM EXPIRES.
	J. C. Huber.....}		
1882	H. C. Schranck.....}	T. H. Spence.....	1888
	John Cadman.....}		
	John Robinson.....}		
1883	A. H. Hollister.....}	A. H. Hollister.....	1889
	T. H. Spence.....}		
	John A. Dadd.....}		
1884	F. Robinson.....}	F. Robinson.....	1890
	J. C. Huber.....}		
	Adam Conrath.....}		
1885	H. C. Schranck.....}	Adam Conrath.....	1891
	John A. Dadd.....}		
	E. B. Helmstreet.....}		
1886	F. F. Prentice.....}	E. B. Helmstreet.....	1892
	C. A. Emerson.....}		
	W. M. Edwards.....}		
1887	C. R. Bechmann.....}	C. R. Bechmann.....	1893
	J. C. Huber.....}		
	R. D. Pulford.....}		
1888	A. A. Pardee.....}	R. D. Pulford died 1893 H. O. Frank	
	J. C. Huber.....}	appointed to fill vacancy.....	1894
	F. Robinson.....}		
1889	J. C. Huber.....}	F. Robinson died 1893. John Rosch	
	F. M. Givens.....}	appointed to fill vacancy.....	1895
	John Kienth.....}		
1890	H. G. Ruenzel.....}	H. C. Schranck.....	1896
	H. C. Schranck.....}		
	E. B. Helmstreet.....}		
1891	F. F. Prentice.....}	E. B. Helmstreet.....	1897
	W. P. Clarke.....}		
	C. R. Bechmann.....}		
1892	C. A. Boehme, Jr.....}	C. R. Bechmann.....	1898
	R. E. Knorr.....}		
	H. T. Eberle.....}		
1893	Edwin Summer.....}	H. O. Frank.....	1899
	H. O. Frank.....}		
	A. F. Menges.....}		
1894	L. C. Urban.....}	A. F. Menges.....	1900
	John Rosch.....}		
	G. Naffz.....}		
1895	D. A. Taylor.....}		
	H. C. Schranck.....}		

Places of Meeting

Since the Organization of the Association.

1880—Madison.
1881—Milwaukee.
1882—Oshkosh.
1883—LaCrosse.
1884—Madison.
1885—Janesville.
1886—Fond du Lac.
1887—Milwaukee.

1888—Palmyra Springs.
1889—Portage.
1890—Appleton.
1891—Milwaukee.
1892—Oshkosh.
1893—Fond du Lac.
1894—Racine.
1895—Sheboygan.

1896—Stevens Point.

Attendance at the Sheboygan Meeting.

NAMES MARKED * WERE ACCOMPANIED WITH LADIES.

Alter, Oscar, Manitowoc.	Cram, Grant, New York, N. Y.
Arndt, O. H., Sheboygan.	Cole, Millard, Sheboygan.
Artram, H. A., Chicago, Ill.	*Coombs, J. H., Chicago, Ill.
*Augspurger, J., Cincinnati, O.	Cole, W. H., Sheboygan.
Albers, W. W., Wausau.	Callender, W. J., Union Grove.
Albright, Mrs., Sheboygan.	Chapman, Frank A., River Falls.
Ames, J. W., Clinton.	Cook, C. H., Mrs., St. Paul, Minn.
*Ballard, T. C., Chicago, Ill.	Colhoun, Mrs., Sheboygan.
Block, J. A., LaCrosse.	Corbett, A. B., Plymouth.
Bell, W. C., Detroit, Mich.	Cook, F. W., Ripon.
Bock, O. W. Sheboygan.	*Dutro, Chas. H., Milwaukee.
Biersach, Paul C., Milwaukee.	Dadd, R. M., Milwaukee.
Bartlett, R. E., Albany.	Davies, R. W., Chicago.
Ballard, A. T., Chicago, Ill.	Dougherty, F. R., Eau Claire.
*Barragar, W. H., Sheboygan.	Dohmen, W. F., Milwaukee.
*Bock, A., Sheboygan.	Dana, J. T., Fond du Lac.
Bodenstein, Metz, Sheboygan.	Dressing, E. H. Mrs., Louisville.
Buchan, T. G., Milwaukee.	Dchrman, W. E., Eau Claire.
Beckel, A. M., Sheboygan.	Estey, E. M., New York.
Bechmann, C. R., Fountain City.	*Ellis, A. G., Brooklyn, Wis.
Backhaus, A. T., Marshfield.	Eckhardt, A. S., Sheboygan.
Babcock, Hattie, Milwaukee.	Ellsworth, A. T., Milwaukee.
VonBaumbach, Chas, Milwaukee.	Eberle, H. T., Watertown.
Breister, W. W., Fond du Lac.	Emmerich, H. L., Milwaukee.
Bruhn, J. Z., New Holstein.	Engsberg, Conrad, Lake Mills.
Brainard, F. E., Green Bay.	Elwell H. Sheboygan.
Bresler, E., Milwaukee.	Esau, Fred, Milwaukee.
Clarke, H. P. Brodhead.	Evans, W. H., River Falls.
Chantler, V. H., Madison.	Elwell, G., New Lisbon.
Clarke, W. P., Milton.	Fisher, A. F., Baraboo.
*Crombie, S. M., Milwaukee.	*Frost, Q. W., Washburn.
Charter, E. G., Chicago, Ill.	Fowler, I. D., Detroit.
Corbett, Geo. W., Plymouth.	Fugina, Ed., Fountain City.
Chase, G. L., Rochester, N. Y.	*Fick, Henry C., Milwaukee.
Curtis, J. W., Detroit, Mich.	Frank, H. O., Milwaukee.

- Fornst. H. G., Manitowoc.
 Graus, Joseph, Sheboygan.
 Gieseler, Chas. L., Racine.
 Gray, D. M., Detroit.
 Gebhard, H. M., Two Rivers.
 Gurke, Otto, C., Sheboygan.
 Gurnther, Emil, Sheboygan.
 Giube, Alfred, Sheboygan.
 Givens, F. M., Fond du Lac.
 Geisse, C. F., Fond du Lac.
 Gieseler, O., Milwaukee.
 Geile, Frank Mrs., Sheboygan.
 Gates J. W., Fort Atkinson.
 Hammel, Jos., Medford.
 Hinz, R. C., Milwaukee.
 Hollister, A. H., Madison.
 Hunkel, C. C., Milwaukee.
 Halzell, Geo. C., Milwaukee.
 Horn, E. A., Oshkosh.
 *Heimstreet, E. B., Janesville.
 Hawley, Fred M., Beaver Dam.
 *Heider, Henry G., Oshkosh.
 *Hayden, John J., Butternut.
 Hinrichs, H., Manitowoc.
 Humphrey, A. J., Waterloo.
 Hayden, A., Shullsburg.
 *Hornboken, Dr., Pt. Wash'ton.
 Hilfert, H. O., So. Kaukauna.
 Houghton, Emma, Milwaukee.
 Hocking, W. J., Waupaca.
 Haswell, E. L., Windsor.
 de Harde, F. A. D., Milwaukee.
 Heitman, Wm., Milwaukee.
 *Irving, L., Sheboygan.
 Irving, H., Sheboygan.
 Jenkins, J., Oshkosh.
 *Jones, John A., Columbus.
 Jenkins, G. W., Kilbourn City.
 Johnson, J. E., Eau Claire.
 Jeffrey, C. A.,
 Jackson, C. W., Sheboygan Falls.
 Jones, A. T., Milwaukee.
 Kremers, Edw., Madison.
 Kuehmstaedt, E., Chicago, Ill.
 Kenyon, C. W., Philadelphia, Pa.
 Kolderup, Thos. S., Chicago, Ill.
 Kalk, Willie, Sheboygan.
 Kalk, W. A., Sheboygan.
 Krumme, Sophia, Fond du Lac.
 Kabel, Peter E., Plymouth.
 Kelly, W., New York.
 Kressin, L. H., Milwaukee.
 Kellogg, T. M., Kaukauna.
 King, Geo. E., Janesville.
 Kamps, J. H., Appleton.
 *Kuehmsted, O., Milwaukee.
 *Krembs, E. M., Milwaukee.
 Kohler, Miss, Sheboygan.
 Koeding, Louis, Sheboygan.
 Kohler, J. M., Sheboygan.
 King, E. B., Green Bay.
 Logan, H. D., St. Paul, Minn.
 Lyon, W. B., Elkhorn.
 Lyons, E. M., Brodhead.
 Loesing, Otto, Sheboygan.
 Luckenbach, A. H., Oconto.
 Lightner, J. A., Randolph.
 Leutscher, R. J., Antigo.
 La Comte, Dr. A., Wausau.
 Lederer, Will, Milwaukee.
 Leubke, A. T., Milwaukee.
 Livesey, Chas., Augusta.
 Morrisson, Jas. W., Chicago, Ill.
 Meyers, J. A., New York.
 *Mallory, Ed., Chicago.
 Mitchell, A. S., Milwaukee.
 Marvill, J. H. Philadelphia, Pa.
 Miller, F. W., Milwaukee.
 Many, L. D., Chicago, Ill.
 Mitchell, F. C., Milwaukee.
 McKnight, L. A., Fond du Lac.
 Meyer, A., Sheboygan.
 Meyer, Otto, Sheboygan.
 Meyer, Louis, Sheboygan.
 Mahlendorf, A., Sheboygan.
 Meier, Paul F., Sheboygan.
 *Mathews, C. E., Chicago, Ill.
 Mathews, John F., Chicago, Ill.

- *Mieding, R. H., Stevens Point.
 Masbaum, John, Crandon.
 Morrison, A. Cressy, Milwaukee.
 *Mieding, A. E., Milwaukee.
 Menges, A. F., Madison.
 Meyer, J. F., Muscoda.
 Mayer, Amelia, Milwaukee.
 Mathews, J. R., Kaukauna.
 Mack, Louis, Milwaukee.
 Madsen, C. V., Racine.
 McNeel, C. J., Kilbourne City.
 *Mueller, F. A., Manitowoc.
 Naffz, C. H., Madison.
 Neumeister, Otto C., Sheboygan.
 Neumeister, Otto Jr., Sheboygan.
 Neumeister, Arthur, Sheboygan.
 *Naish, E. B., Milwaukee.
 Norwood, Miss J., Sheboygan.
 Nordvi, A. C., Waupaca.
 Ohde, A. W., Milwaukee.
 Oakes, E. A., Chicago, Ill.
 Otto, A. S., Centralia.
 Puchner, E., Wittenburg.
 Pflueger, W. F., Milwaukee.
 *Pfeifer, C., Plymouth.
 Pauly, A. P., Chicago, Ill.
 Pfeil, Anton, Fond du Lac.
 Passino, F. G., Kaukauna.
 Pardee, A. A., Madison.
 *Pardee, E. D., Wausau.
 Peck, D. R., Wausau.
 Pierson, T. R., Oshkosh.
 Pokorny, J. C., Racine.
 Reich, Wm. F., Sheboygan.
 *Rice, C. W., St. Paul, Minn.
 Ross, Eugene, Chicago, Ill.
 *Rawson, M. A., LaCrosse.
 *Rider, J. G., Rockford, Ill.
 Randall, L. E., Chicago, Ill.
 Roenitz, H. F., Sheboygan.
 *Rollman, Henry, Chilton.
 Randall, C. E., Chicago, Ill.
 Reinhardy, S. M., Burlington.
 Ruenzel, H. G., Milwaukee.
 Richey, J. E., Lebanon, Ind.
 Roberts, J. E., Cambria.
 Rediger, G. P., Durand.
 Randall, S. S., Chicago, Ill.
 *Reichel, Hugo, Milwaukee.
 Rosch, John, Menasha.
 Reichel, Ernest, Milwaukee.
 Roth, Miss Lena, Sheboygan.
 Roentz, Mrs. Chas., Sheboygan.
 Reisten, A. W., Wauwatosa.
 Roth, T., Sheboygan.
 Reich, W. F., Shawano.
 Reinhard, G. C., Reeseville.
 Richards, Richard, Racine.
 Rustad, H. C., Clinton.
 Rupp, J., Menasha.
 Sickles, Lee, Philadelphia, Pa.
 *Spencer, C. A., Waupaca.
 Spurr, F. A., Chicago, Ill.
 Schuler, C. N., Chicago, Ill.
 Shuman, C. B., Indianapolis, Ind.
 Schucht, Walter, Milwaukee.
 Sallade, W. A., Fond du Lac.
 Simmons, J. F., Chicago, Ill.
 *Sauerhering, R., Mayville.
 Stolte, Geo. W., Reedsburg.
 Sedgwick, F. A., Clintonville.
 Schranck, Henry C., Milwaukee.
 Steinham, Roland, Sheboygan.
 Schapper, F. C., Chicago, Ill.
 Smith, Ed. O., Janesville.
 Slegman, H. O., Milwaukee.
 Schram, John, New London.
 Seresse, F. J., Fond du Lac.
 Scaunann, R., Brooklyn, N. Y.
 Selle, Miss Emma, Milwaukee.
 Selle, Miss Carrie.
 Schwaiger, E. H., Wauwatosa.
 Swendener, J., Milwaukee.
 Schallern, C., Ripon.
 Saxton, J. C., Clear Lake.
 Sells, Otto A., Fond du Lac.
 Schwanberg, H. T., Milwaukee.
 Schwalter, T., Milwaukee.

- Schmidt, W. H., Watertown.
*Tanner, H. E., Oshkosh.
Trayser, M. C., New London.
*Timm, E. W., New Holstein.
Tufts, S. W., Milwaukee.
Taylor, D. A., Stevens Point.
*Thieman, F. W., Sheboygan.
Tomkiewicz, F. J., Milwaukee.
Topletz, Sam, Milwaukee.
Urban, L. C., Milwaukee.
Unger, Mrs. H.
Von Herman, F., Milwaukee.
*Volkmann, H., Kingston.
Van Horn, C. A., Milwaukee.
Voegel, Fred, Milwaukee.
Weigle, G. J., Milwaukee.
Wusson, H. F., Milwaukee.
*Wright, E. M., Prairie du Chien.
Wehle, F. O., Fond du Lac.
*Way, T., Sheboygan.
*Wakeman, C. A., Monroe.
*Werbke, N. C., Oshkosh.
Wendelborn, H. Jr., Appleton.
Wendelborn, H., Appleton.
Widule, C., Milwaukee.
Wood, S., Chicago, Ill.
Watson, Frank, Chippewa Falls.
Welter, A. O., Milwaukee.
Williams, Mr., Chicago, Ill.
Wenninger, Wm., Milwaukee.
Weber, E. J., Milwaukee.
Wendt, F. Jr., Juneau.
Wilcox, Mrs. John, Waldo.
Welser, G. B., Milwaukee.
*Washburne, R. J., Palmyra.
Wehle, W. J., West Bend.
Wilcox, Mrs. E. J., Waldo.
Wilcox, Miss Olive, Waldo.
Wilder, Jas. S., Milwaukee.
Weber, H. F., Milwaukee.
*Yates, C. F., Janesville.
Young, H., Chicago, Ill.
*Zaegel, Max R., Sheboygan.

Papers to be Read at Stevens Point, 1896.

Are the bottled preparations sold in general stores, such as Tinctures, Essence, etc., up to the requirements of the U. S. P?

R. SAUERHERING.

Should Pharmacists patronize any Manufacturer who solicits orders from Physicians?

A. A. PARDEE.

How many of the new Synthetic Compounds introduced during the past two or three years have become staple and proved valuable?

L. C. URBAN.

Is the Pharmacy Law as construed and enforced by the Board of Pharmacy of this state generally satisfactory to the Druggists of the state?

EDWIN SUMNER.

Do the Elixirs and Medicated Wines obtained from Manufacturers generally contain the stated amount of medicine?

CONRAD ENGBERG.

Do the Pills, Tablets and Tablet Trictrates purchased from Manufacturers and Jobbers contain the stated amount of active remedies?

A. S. HIPKE.

What is the actual digestive power of the several Pepsins on the market?

W. P. CLARKE.

Do the Druggists of this state generally approve of the charges for boxes and cartage as made by Jobbers?

A. F. FISHER.

Does it pay a Pharmacist to keep a full line of Spices and push the sale of same, and are the Spices sold in general stores of good quality?

H. R. EMMERICH.

MINUTES
OF THE
Fifteenth Annual Meeting
OF THE
Wisconsin Pharmaceutical Association,
Held at Sheboygan, August 13, 14, 15, 1895.

First Session.

Tuesday, August 13th, 10 a. m.

When President Hollister dropped the gavel and called the Wisconsin Pharmaceutical Association to order, at Concordia Hall, it was before the largest audience ever assembled at the first session of any of our meetings, and he greeted the pharmacists with a few words of welcome, expressing his pleasure at having such an attendance at this time, and that he hoped that this meeting would long be looked back to as one of the most instructive and important ever held by this Association. Jos. Hammel, as chairman of the executive committee, then reported favorably on the following names and they were balloted for and declared elected members:

C. W. Aust, West Superior; H. P. Clarke, Brodhead; W. A. Douglass, Glenwood; Otto C. Dettloff, Chippewa Falls; H. L. Emerich, Milwaukee; H. M. Gebbard, Two Rivers; J. A. Hayes, N. Y.; A. Hayden, M. D., Shullsburg; W. F. Reich, Shawano; David Shesgreen, Shell Lake; C. B. Shuman, Madison; E. O. Smith, Janesville; M. C. Trayser, New London; E. E. Williams, Antigo; Geo. J. Weigle, Milwaukee.

The Secretary reported the following delegates as having sent credentials: Minnesota, F. M. Parker, Red Wing; John von Rohr, Winona; J. R. Springsted, Dodge Center. National Wholesale Association—Jas. McCord, of La Crosse,

The papers were accepted. A letter was read from Mr. McCord extending congratulations, and asking that Mr. M. A. Rawson be accepted as delegate in his place. This was adopted and Mr. Rawson addressed the Association expressing the good will of the National toward the W. P. A., congratulating them on the good work done by them and expressing the wish that this meeting would prove both pleasant and profitable.

*REPORT OF DELEGATES TO THE AMERICAN
PHARMACEUTICAL ASSOCIATION.*

The only member of your committee which attended the meeting of the A. Ph. A. at Asheville in September, 1894, was Mr. John A. Dadd.

His sudden and unexpected death leaves us with a rather incomplete report from that Association compiled from the proceedings and devoid of the valuable suggestions which we have been in the habit of receiving from Mr Dadd in connection with his reports.

The meeting was well attended and to judge from the numerous meritorious papers presented was a very successful one.

Among the papers presented we find one by Prof. Ed. Kremers and Leo. C. Urban on Arocyrenes and "Derivatives," the result of work done at the University; one by Dr. Ed. Kremers, "The Apprentice System."

The annual report on the progress of pharmacy is exhaustive and contains the usual amount of valuable information.

The cutting evil was again thoroughly discussed and ended in the adoption of a resolution endorsing the Patent Medicine Plan of the Interstate Druggist League. (This plan in short requires the withdrawal of patronage from any wholesale dealer who knowingly furnishes cutters with any merchandise whatever, also to discontinue the sale of any patent or proprietary article furnished to cutters by manufacturers or their agents.) The question of tax on free alcohol was also thoroughly ventilated.

The opinion prevailed that the law could not be enforced so that all that were entitled to the benefit would receive it and that it would practically discriminate against the retail druggist.

Finally the following was adopted as expressing the sentiment of the Association: The A. Ph. A. at its forty-second annual meeting, having carefully considered the recent action of Congress in enacting legislation exempting alcohol "used in the arts or medicinal compounds," from internal revenue tax, as presented by Sec. 61, of "An act to reduce taxation," &c., known as "The Tariff Bill" of the last Congress, and being convinced of the impos-

sibility of regulating and controlling the use of alcohol in the broad sense in which such exemption might be construed, therefore earnestly and unitedly protest against any interpretation of such section except as follows, to-wit: That the payment of rebate on the internal revenue tax on alcohol used in the manufacture of those products in which the use of alcohol is so changed as to lose absolutely its chemical and physical properties, including the class of chemical compound known as ethers, chloral and chloroform, and the manufacture of such alkaloids and chemicals as may be specified by the secretary of the treasury.

A resolution was also adopted expressing it the sense of the association that a table of maximum doses be inserted in the U. S. Pharmacopoeia.

The attention of the members of the Wisconsin Pharmaceutical Association is called to the proceedings of the A. Ph. A. which embodies the views of the shining lights of the profession on the leading questions and scientific topics. The report on the Progress of Pharmacy, which contains in a condensed form all of any merit that has been done in the field of pharmacy and allied sciences during the year, is alone worth the membership fee of five dollars per annum and amply repays any one to become a member.

Wm. Simpson, of North Carolina, was elected president, and Chas. Aspari, of Maryland, permanent secretary. The meeting will be held in Denver, Col., beginning August 14th.

For the Chairman.

ADAM CONRATH.

REPORT OF PERMANENT SECRETARY.

The year of '94 and '95 has been a most prosperous one for the Wisconsin Pharmaceutical Association. Commencing with the boom started at Racine, the interest has kept up until the present time.

The work done by the Local Secretary and the local committees cannot but be felt in the increased attendance and interest at this meeting.

The placing of the dues at two dollars was wise. No one felt the increase and it has resulted in our having plenty of funds to work with and a balance of one hundred and eighty dollars in our treasury at this date, with all bills paid. Our expenses have been about the same as in former years. Some of our best working members have been called away from us by death the past year, and faces we have been accustomed to see will be with us no more.

We have four hundred and twelve names on our books at this

date, a few of whom are back on dues, all of which will be included in the treasurer's report. The Association is indebted to the Pharmaceutical press for many courtesies the past year. The Western Druggist, Pharmaceutical Record, Pharmaceutical Era, Registered Pharmacist, Druggist Circular, Meyer Bros., Druggist, and Merks Bulletin, should especially be noticed, as giving notices of meeting, etc. The different committees have sent in complete reports which will cover the work of the association during the year.

E. B. HEIMSTREET,
Secretary.

On motion adopted.

*REPORT OF TREASURER FOR YEAR ENDING
JULY 31st, 1895.*

RECEIPTS.

To Cash on hand Aug. 1st, 1894.....	\$160 35
To Cash received for fees, dues, certificates and Proceedings.....	439 75
Total.....	\$600 10

EXPENDITURES.

By paid orders, Nos. 179 to 185, inclusive.....	\$407 69
By Cash balance on hand.....	192 41
Total.....	\$600 10
Increase in cash balance over 1894.....	\$33 46

The annual dues have been fairly well paid although there are now thirty-eight members who are in arrears three years. Their names have been reported to the executive committee for action. During the year six who had been dropped for non-payment of dues, have been re-instated.

W. P. CLARKE, Treasurer.

Referred to finance committee.

E. B. Heimstreet stated that the new tariff provides for free alcohol for arts and manufactures. Under the latter head pharmacists are entitled to a rebate of the government tax of \$1.10 per proof gallon, or about \$2.09 on 95 per cent. alcohol, when used in manufacturing. He had looked into the matter and in his opinion it was time thrown away for the average retail druggist to attempt to make any such claim. There were so many rules to follow that he would become confused and his time would be wasted.

L. A. Lange was called on and responded: I have followed the question of free alcohol quite closely, and from what I have read

and learned, I believe that all depends upon the issue of what may be called the "test cases" now before the Court of Claims. In these cases the attorneys for the Government do not seem to question the validity of the claim, under Section 61 of the "Wilson Bill," but are bringing to bear all the technicalities they can think of to make the proof, the use of alcohol, under the provisions of this act, impossible. In the Dunlap case, which is the claim of Dunlap & Co., hatters, of New York, for rebate on alcohol used in the manufacture of hats, the Government has endeavored to show that the alcohol was not at all times under the care of one person, but was handled by a number of persons, neither of whom could testify to the acts of others. Large claims have been entered by manufacturers such as Parke, Davis & Co., Sharp & Dohme, and others, besides the innumerable claims of the proprietary medicine manufacturers. I am opposed to free alcohol for the use of the latter class, for the reason that I believe the public at large would not be benefited one mill if the proprietary medicine men obtained free alcohol. In most cases the price of "Jones' Cure-All," "Smith's Elixir of Life," &c., &c., would remain at \$8.00 per dozen and the manufacturer would pocket the difference. Free alcohol in the manufacture of general chemicals and pharmaceuticals would benefit all, as competition would reduce prices, but the price of a proprietary medicine is arbitrarily fixed by the maker without regard to actual cost. The retail druggists cannot expect to derive much benefit from the rebate of the tax on alcohol at present. The amount he uses, while of fair proportions, is scarcely sufficient to warrant him in conforming to the requirements of the law. He would have to keep one package exclusively for manufacturing purposes and another to sell from. It may be, if the claimants in the cases now before the Court of Claims are successful, that the government will issue regulations for the refunding of the tax which can readily be complied with by all. As the tax amounts to about \$100 per barrel, it will be seen that it makes quite an item.

Remarks were made by Prof. Kremers, W. P. Clarke and others and it being late the matter was laid over until to-morrow morning.

The report of the Committee on Legislation was read and adopted.

REPORT OF COMMITTEE ON LEGISLATION.

Legislative work in associations is all important. Without union or system of management in any public or private enterprise, whatever it be, there is always bound to be more or less trouble toward securing just legislation. In securing proper

pharmacy laws, as in efforts in many legal enactments of a different character beneficial to mankind, but what conflict with past customs, there is always an underlying combating element at work which makes it difficult toward securing an end that is satisfactory to the promulgators or community. Indiscriminate persons with the discriminate have their power or influence with legislators. Druggists' associations, working collectively for better laws, are doing good work, as the legal accomplishments secured through the agency and assistance of such bodies, in all enlightened nations, plainly show. Wisconsin gives an exhibition of this, for by concentrated work we have accomplished much. After the meeting in 1894, the committee carefully revised the law, which was given to Mr. Jeffris, the attorney of the board, who made a draft of the proposed amendments, and the bill was introduced in the legislature passing both houses with but little trouble. Some changes were made by the legislative committee that were not in the bill, but we are well satisfied with the result. The chairman of the committee went before the legislative committee several times. We were also aided in our work by students and others in the pharmacy department of the University. The full changes in the law will be found in the report of the Board of Pharmacy. Your committee would also report that the almost unanimous feeling among the pharmacists of Wisconsin in favor of the law and the general compliance with it, has made our work a pleasure.

A. H. HOLLISTER,

C. WIDULE,

D. W. JOHN,

CHAS. PFEIFER,

F. M. GIVENS,

Committee.

Secretary Heimstreet then called the attention of the members to a case showing the benefits of belonging to the association. A druggist in a small town purchased two barrels of linseed oil. When it came it was leaking and he noticed that it did not look right. He refused to accept it, stating that he did not think it was pure. The firm replied by sending an attorney to commence suit, but in the mean time he had reported the case to the secretary of the Association who had an analysis made of the oil by State Chemist Mitchell who reported that it contained 30 per cent. of rosin oil. Word was sent to hold the oil and prosecution would be commenced against the firm but they had taken it away before it could be had, and saving the druggist the expense of a law suit as well as the cost of the oil.

The secretary read the Atkinson plan as published by the druggists and the same was referred to the executive committee.

The American Pharmaceutical Association plan was then read and referred to a committee on legislation.

Adjourned.

Second Session.

Tuesday, August 13th, 2 p. m.

President A. H. Hollister called the convention to order.

J. J. Hayden, Butternut, was elected to membership. Max R. Zaegel, chairman of the local committee, then welcomed the pharmacists of Wisconsin in the following words:

GENTLEMEN—In the course of work done by our local association I have been offered an opportunity to thoroughly realize the importance of our annual meeting, which I regret to say, for unavoidable reasons, I have heretofore not attended. I use the word unavoidable with some reluctance, for I cannot help but admit, that although at the time it seemed justifiable to stay at home, it was partly a lack of interest on my part that ways and means were not devised to attend in person. If any present deserve the same criticism as is due me, I trust they also will recognize their error and by future attendance show their zeal for our common cause and through their assistance and hearty co-operation prove an additional power to elevate our profession and mitigate the evils existing therein. To successfully conduct a pharmacy requires such close attention to small details that we are apt soon to feel as though but a temporary absence from our daily surroundings would be detrimental to our business. We forget that the mind, as well as the body, requires not only rest but recreation, which we can best accomplish by an excursion to some city within our state where upon a common level we meet as brothers and by an interchange of opinions, mutually profit thereby. In a body of men coming together under conditions in which not only the business side, but the social side of life is given prominence, many ties of friendship are formed and a feeling of mutual esteem and general good fellowship result, which I feel cannot help but brighten our lives, give us renewed ambitions, and by united efforts enable us to secure for pharmacy that equal position amongst the great professions it deserves.

There is more to our profession than the accumulation of the almighty dollar; although in every transaction, large or small, mutual confidence, honesty and integrity, play such an important role, that I know of no occupation where these principles should

be more diligently fostered and cultivated than ours. An agreeable feature of our profession is its unlimited field for investigation and research, and I trust you will all agree with me, that the longer we have been knights of the mortar and pestle the more ready we are to acknowledge having learned something new each day. The mental and physical work required of the modern pharmacist, is so nicely divided, that although an indoor occupation, I believe where due attention has been given to light and ventilation, statistics will prove that the pharmacist's chances of enjoying good health and attaining a ripe old age are as favorable as those of any other profession. It may be due to this fact that so many women find it an equally inviting field. I believe the number of lady pharmacists will increase from year to year and am pleased to see the interest shown by so many of them at our annual meetings and especially thank them for having attended this one.

I can assure you that our friend, Herman Roenitz, upon whose broad shoulders have been placed the pleasant duty to look after their welfare, will leave nothing undone to make them feel at home and thoroughly enjoy their coming here.

I wish, on this occasion, to thank the members of our local association for the interest manifested by each. In endeavoring to make this meeting a success, much credit is due to our local secretary, F. W. Thieman, for the conscientious manner in which his duties were fulfilled.

The number and aggregate value of prizes we are in a position to offer exceed those of any meeting in the history of our association, and as this is due to the generosity of home and outside manufacturers we must ever bear in mind our obligations to them and reciprocate the many favors shown us, whenever opportunities arise.

Now, gentlemen, as president of our local association, I extend to you all a hearty welcome and take the liberty of introducing to you our honorable mayor, Col. Chas. Born, whose official capacity will enable him to offer to us all the freedom of the city, and with it the key thereof.

Mayor Born then took the floor and with a few well chosen words, extended to all the visiting druggists the freedom of the city, and assured them a hearty welcome from all of its citizens. At the same time the mayor presented the city key to the visitors. This key is a very unique affair, being four feet in length, made of three ply veneering and gilded with the best quality of gold leaf. Great pains were used in getting up this key, the object being to make it a permanent memento commemorative of the most successful drug meeting ever held in the state.

President Hollister then responded on behalf of the association:

MR. MAYOR:

It is quite embarrassing to respond to such an eloquent and cordial welcome as you have extended to the Wisconsin Pharmaceutical Association of your beautiful city.

In accepting this golden key of the city from you, in behalf of the Wisconsin Pharmaceutical Association, as a token of the completeness and heartiness of the welcome extended to us, and judging the welcome from the size of the key, great indeed is our task to fulfill our part in the generous welcome given.

I sincerely hope that we shall do our part during our brief stay in showing we appreciate the genuine spirit of hospitality as evidenced by your kindly words and by the size of the emblem representing it; and that recollections of this occasion shall only bring pleasant memories of our happy stay in this beautiful and hospitable city, whose busy hum of machinery tells of your thrift and enterprise, and your reputation for being the largest manufacturing point for chairs in the world, goes easily alongside your reputation for bright men and beautiful women, and interesting children, who, as they grow up to manhood and womanhood will reflect honor on this, their birthplace, as you have done, sir, by your energy and enterprise in helping to make this a city of note in this, our great State of Wisconsin.

Please accept our thanks for this expression of good will and interest on the part of the citizens of Sheboygan.

The annual address was then read by A. H. Hollister, of Madison, president of the association.

Wisconsin Pharmaceutical Association :

LADIES AND GENTLEMEN:—Another year has passed since last we met in the beautiful and enterprising city of Racine, a year that has brought its full round of lessons, of its successes and reverses, to those in our midst. To-day we are met in one of the progressive, busy, thrifty manufacturing centers of our great commonwealth; a city of no mean reputation and whose ambition to seat the world is only circumscribed by the limits of time and space. A clean, well-ordered, well-governed city of many refined, cosy and delightful homes, whose occupants are deeply interested in anything that pertains to a bright and prosperous future for this, their chosen abode—a city whose feet are laved by the waters of beautiful and mighty Lake Michigan—the municipality upon which the eyes of the entire state and nation are turned to witness the growth and prosperity of which unlimited and accumulative

advantages of location and enterprise give full and ample promise of proud realization. As we tarry here for a few days I trust we shall catch some of the pervading spirit of its residents and take it with us, thereby intensifying the thoughtful memories of our stay and making our visit one long to be remembered as a red letter day in the history of our association.

A decade and a half has passed all too swiftly since a few of the faithful ones met in our capitol at Madison and launched the prideful bark named the Wisconsin Pharmaceutical Association. How well it has sailed you need not be told now, as you have contributed your share in speeding it successfully on its way, gaining firmer headway as its crew acquires constantly greater energy of purpose: the bark sails on and on and will continue to after you and I are silently entombed in Mother Earth. I am led to this remark by the fact that some of the most active in the organization fifteen years ago, and whose voices and labors helped man the ship for many successful years, are not with us to-day—the gentlemanly Prentice, the faithful, earnest Robinson, the conservative Pulford, the enthusiastic, kind-hearted Dadd, and a host of others whose heritages we esteem and whom memory would delight to recall as sailors upon this, our proud ship, in the purposes of which we are so interested and throughout whose noble voyage we are so anxious that it continue on its good course, a blessing to all who come on board or even get in sight of its flying colors or hear the sound of the voices of its manly crew. Death has laid many of our active workers low; hence it behooves us who remain to bestir ourselves to more active effort in behalf of progress in our chosen vocation—Pharmacy.

The Wisconsin Association has turned its face to the light in all lines tending forward and upward, lifting the standard a little higher each year, until to-day our state, in all things that pertain to pharmacy, occupies a position most high, commanding the sincere respect of her sister states. Our good work and efforts should increase in directness, energy and interest until all pharmacists in Wisconsin shall become active members of our society; first for their own good, but second, and equally essential, that more good may accrue to the greater number. You need not be told the strength and power we could wield, if all who are registered were combined for the good of all, which includes the best service to the public, and that service obviously insures a prosperous business. Certainly it is admitted by all engaged that the profits of the business are not at all in proportion to the labor and responsibilities involved. The two years just passed have tried men's souls; and it is to be hoped that the clouds are breaking away, and the light of

better days will stream in to dispel the darkness, and usher in a more prosperous season—an event devoutly wished for by the patient, hard-working, pains-taking, careful, poorly-paid druggist, as well as by business men in all lines.

I would commend to your notice and ask for your endorsement of the resolutions emanating from the Chicago Retail Druggists' Association and would suggest a committee of three be appointed to take the same into consideration and confer at once with A. E. Ebert, Secretary, State and Polk streets, Chicago, and that the necessary expenses of such committee be paid by the Association.

It must be evident to every retail druggist that the United States law imposing a liquor tax of \$25 is unjust, unfair, and a gross imposition, and we cannot be too active in showing our opinion of its odiousness. Need I say to you, ladies and gentlemen, that we must stand together in meeting all the questions that touch upon our material prosperity and work for every project that tends to protect our interests and to advance our success.

The legislation of the past winter has been on improved lines and has called forth the commendation of that splendid advocate of the cause of progress in our ranks, The Western Druggist of Chicago. We owe much to the Western Druggist, the publishers of which have proven themselves the true friends of the faithful pharmacist. Its position on affairs of great concern to us is always frank, logical and for the best interests of our brotherhood. It remains for us to do our part in obeying the law and see that others do likewise.

The department of pharmacy at the State University is a child of this association, and we should give it that hearty, cordial support that it needs, and which it should be our pleasant duty to accord, using our best efforts and endeavors to attract to it all the aspiring young people of the State who seek the best pharmaceutical instruction: we should at least be loyal to this—our own offspring. I believe each succeeding year will show an increasing value and appreciation of the advantages of graduation from so splendid an institution as the University of Wisconsin.

The list of dead for the year includes the names of John A. Dadd, Herman Dettloff, Robert Conradi, M. A. Sawyer. We honor their memories and commend their virtues. They have left us much to cherish even in the midst of regret for their departure from honorable and earnest and purposeful lives.

Our finances are in better condition than ever before; our membership is increasing, and the awakened interest in the meetings of the association are a source of pleasure to us all.

Believing in our association, let us put our faithful works to-

gether and make of the organization an earnest, striving, influential body, that shall be respected and listened to whenever we come to the public for recognition. We have asked favors in the past, and I think we have used them rightly.

Let us continue to advance the interests of pharmacy by our united efforts along such lines as shall meet the approval of the better minds in our state and country, and attract to us all who are aiming for advancement and a higher standard of excellence. And thus the Wisconsin Pharmaceutical Association shall become, under continued wise management, of great use to its members, and a source of good to the great public whom we seek to serve acceptably and well.

Before closing I desire to again express my thanks for the honor you conferred on me last year in electing me to the honorable position of president of the Wisconsin Pharmaceutical Association.

The address was referred to a committee of Messrs. Rollman, Pfeifer and Dadd.

The insurance committee made a verbal report stating that nothing had been done the past year and they had no recommendations to make.

The committee were continued another year.

Adjourned.

Third Session.

Wednesday, August 14th, 10 a. m.

Called to order with a crowded house. E. C. Fugnia, Fountain City; L. A. McKnight, Rosendale; J. E. Roberts, Cambria, were elected members.

Committee on President's address made the following report:

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS.

Your committee appointed on President's Address respectfully endorse his report as regarding a committee of three to be appointed to confer with the Chicago Retail Druggist Association to confer at once with A. E. Ebert, secretary, at Chicago, and that the necessary expenses of such committee be paid by the Association, and we heartily endorse the resolutions as presented by the Chicago Retail Druggists Association.

We also heartily endorse the President's remarks in regard to the United States law imposing a liquor tax of \$25.00 as unjust and a gross imposition on the retail druggists all over the United States.

We also commend the President's remarks regarding the Mad-

ison School of Pharmacy and would ask all members of the Wisconsin Pharmaceutical Association to use their best efforts to send their apprentices to the Department of Pharmacy, at the University at Madison.

We also appreciate his remarks regarding our Association to put our faithful works together and make our organization an earnest striving influential body, that shall be respected and listened to whenever we come to the public for recognition.

Respectfully submitted,

HENRY ROLLMAN.

CH. PFEIFER.

ROBT. DADD.

Mr. Sauerhering offered the following addition to the committee report and the same was referred back to committee and adopted.

MR. PRESIDENT:—At the last meeting of the American Pharmaceutical Association, at Asheville, North Carolina, a committee was appointed, composed of one member from each state, to bring before congress the present unjust position of Pharmacists in the United States Army and Navy, and urge legislation to correct this evil. Every civilized nation, except one besides the United States, recognizes the importance to the general welfare of the army and navy of educated and able pharmacists, and give them rank and pay in keeping with their professional attainments.

By Dr. George F. Payne, of Atlanta, Georgia, chairman of said committee, the undersigned was informed that he was the member appointed from Wisconsin.

According to the regulations of the United States Navy, a candidate for examination and first enlistment as Apothecary in the service of the Navy of the United States, must be a graduate of some recognized college of pharmacy, between twenty-one and twenty-eight years of age, of good character, good habits and sobriety, and pass the physical examination; also has to pass a satisfactory examination, before a board of medical officers, in general education, in Materia Medica, Pharmacy, Chemistry, Toxicology, Pharmacognosy, compounding prescriptions and critizing the same; also a practical knowledge of bandaging, minor surgery and application of dry and wet cups is desirable, for which due credit will be given.

These attainments required, in conjunction with practical experience, are of a high character, for which a pay of \$60 per month is offered, and being on ship-board, we may presume lodging, boarding, etc., will also be given; the rank accorded to the Apothecary in the United States Navy, I believe, is that of a non-

commissioned officer's, which is not in accord with the position and the attainments required.

In the army of the United States are regulations of an entirely different character. All enlistments are of the grade of private three years service. In this service there are no regular Pharmacists or Apothecaries, the acting Hospital Steward and the Hospital Steward have to perform the duties of a pharmacist. Candidates for hospital service are sent to a hospital corps and instruction in duties as acting Hospital Stewards, and after one years service and showing of earnestness, intelligence and passing a satisfactory examination they will be recommended to the Surgeon General, who will assign them to the position of acting Hospital Stewards. After one year service as such and again passing a satisfactory examination they will be promoted to Hospital Stewards. The pay is \$45 to \$55 per month, with boarding, lodging and clothing free, the rank that of a non-commissioned officer. After thirty years of faithful service, they may be retired and receive three-fourths of the pay allowed by law in the grade they held when retired, besides commutation for clothing and station.

In case a candidate before enlistment has had practical and theoretical experience as a pharmacist, such as a full course of a college of pharmacy or in a training school for nurses, he may not be required to serve the full year of probation.

We thus see that in the Navy of the United States Pharmacists are well recognized, but the rank and pay are not in keeping with the attainments required.

In the Army of the United States Pharmacists as such are not recognized, the duties of pharmacists are considered as incidental to the office of Hospital Stewards and performed by them and it is only in case a pharmacist does enlist, aspiring to the position of hospital steward and obtains the same, that a trained pharmacist is being employed.

The following resolution is herewith offered for adoption by this Association :

WHEREAS, The position and remuneration of pharmacists, in the services of the army and navy of the United States, is not in harmony with the professional attainments required, and therefore the services of the most competent men for this important work are not secured; and

WHEREAS the degraded position of pharmacists in the United States service compares unfavorably with their higher official recognition by nearly every civilized nation, that it would appear, that we are less considerate of the health and lives of our soldiers and sailors; therefore be it

Resolved, That the Wisconsin Pharmaceutical Association heartily endorses the legislation advocated by the committee of the American Pharmaceutical Association, looking to the higher official recognition of pharmacists in the army and navy of the United States and respectfully request our Senators and Representatives in Congress to use their best efforts in securing the passage of such legislation.

I would recommend that a petition in about the same form and meaning as the following be printed and sent to every pharmacist in the State, by him to be signed and sent to the Senator and to the Representative of his district:

To the Honorable the Senate and House of Representatives of the United States in Congress assembled:

The undersigned respectfully prays your honorable body to make the following enactment:

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled :

That on and after the passage and approval of this act, the rank of an apothecary or pharmacist in the service of the Navy and Army of the United States, shall be that of a commissioned officer; and that the pay of an apothecary or pharmacist in such service shall be the same as is paid in civil life to persons in this profession of whom the same responsibility and attainments are required, as laid down in the Regulations of the Navy Department of the United States.

Yours respectfully.

.....

A. F. Menges then read the report of the committee on adulterations.

REPORT OF COMMITTEE ON ADULTERATION.

The Committee reported no work done the last year. That it was impossible for a committee of this kind to do anything, and they offered a suggestion that a committee of five be appointed, selected from the best working members of the association. That the appointment should be as follows: One each for one, two, three, four and five years, and hereafter as their time expired, a new member should be appointed for five years. In this way good men can be selected and they can do work reflecting credit both on themselves and the association. They also recommended that a sum of money be appropriated to carry on such work as would come to them, as by acting in conjunction with students in the pharmacy department of the University, it could be done at small expense.

A question was asked the committee what amount they thought should be appropriated. Mr. Menges stated no amount had been fixed but thought about one hundred dollars. Mr. Pardee asked what states had taken up this matter besides Ohio. R. Sauerhering said, "I am not in favor of the appropriation for this purpose, as I believe it would be better to send such doubtful specimens to be analyzed to our University, with the respectful request to Professor Kremers to have it done. Then as the students have to do analytical work, it would make no difference to analyze those specimens sent or to analyze something else, as at any of these analytical labors the student will acquire practice to do analytical work."

C. A. Spencer remarked: "On matter of adulteration my opinion is the druggists can very materially improve matters by buying their goods only from reliable firms, and to always insist on getting the best goods. This would discourage the manufacturers of cheap articles and compel those people to go to outside houses for their trade, while the druggist having a better article can command better prices."

Fred Wolfrum thought it too much to pay.

Dr. Edward Kremers stated that the report of the committee on adulteration was very opportune and deserved the careful consideration of the association. "Mr. Menges has spoken to me several times about this matter and has asked me whether and how the University could assist the association in doing this good work. In as much as it has been suggested by others that the School of Pharmacy should carry on this work through its students, without the financial support of the association, I should like to call attention to the fact that the work of the University is primarily, and above all, of an educational character. If we had a pharmaceutical experiment station connected with our school, such as the College of Agriculture has, it would be quite different. The agricultural experiment station receives an annual income both from the state and from the national government which far exceeds the income of the School of Pharmacy. As it is, the income of the school is scarcely sufficient to pay the salaries of the instructors and to equip the laboratories with the necessary apparatus. It therefore appears very doubtful whether the University authorities would authorize the expenditure of any sufficient sum of money to carry on the work satisfactorily. Neither can the undergraduate students do reliable work."

"What can be done satisfactorily has already been stated by the chairman of the committee. If by means of a reasonable sum of money set aside for this purpose by this association, a good graduate student can be persuaded to undertake the desired work, I am

confident the university will meet the association half way and offer such a young man the privileges of the laboratory free of charge. Not only I, but the entire instructional force of the school, will be glad to assist such a person in his work. The association would thus enable an earnest student to continue his studies after graduation and at the same time for once have the work of one of its most important committees done satisfactorily.

"It should be clearly understood, that if I, or some other member of the school should be entrusted with the oversight of such work that our reports would be to the committee on adulteration, and that all information gained by us would be considered confidential, at least until the committee has reported to the association.

"This work, which can be made of greatest benefit to the people of this state and indirectly to the druggists themselves, should not be left to the State University, nor to the food, dairy and drug commission. If this commission begins the investigation of the drugs of the Wisconsin market, well and good. They may produce results that will not only startle the druggists but the people of the state in general. Some of these results may prove of an unpleasant nature as they have in other states.

"It certainly would be considered highly commendable by the people of this state if the druggists themselves made an effort to secure pure drugs and to banish all impurities and adulterations from the Wisconsin drug market. If the State Pharmaceutical Association desires to do this it will find hearty allies in the members of the faculty of their school of pharmacy."

H. T. Eberle thought druggists should submit samples of suspected goods to this committee. The following resolution was then proposed and adopted:

Resolved, That the committee on adulteration of this association be hereafter constituted of five members who shall serve for a term of five years each, after the first appointment. The members of the committee appointed this year shall serve for the terms of one, two, three, four and five years; the terms of the individual members to be determined by lot. Any vacancy occurring in this committee may be filled by appointment by the president of this association.

R. Sauerhering then offered the following resolution which was adopted:

WHEREAS, The position of the pharmacist in both the army and navy of the United States is such as not to invite or secure the services of the most competent men for this important work, and

their degraded position in the United States service compares so unfavorably with the higher official recognition in other civilized countries, that it would appear that we are less careful and considerate of the health and lives of soldiers and sailors than other countries; therefore be it

Resolved, That we most heartily endorse the legislation advocated by the committee of the American Pharmaceutical Association, looking to the higher official recognition of pharmacists in our army and navy, and respectfully request our senators and representatives in congress to use their best efforts in securing the passage of such legislation as requested.

I also present for adoption the following resolution to the copyright law as it affects imported medicines and chemicals:

Resolved, That a special committee on national legislation, to consist of three members, be appointed with authority to act independently, or in co-operation with such similar committees as may be appointed by other pharmaceutical associations, in behalf of measures promotive of the interests of legitimate pharmacy and the retail drug trade, as said interests may be affected by national legislation, including specifically the said law relating to alcohol taxation, the laws concerning trade-marks, copyrights and patents as related to medicinal preparations, and the law imposing an annual tax on druggists as retail liquor dealers.

R. SAUERHERING.

A. A. Pardee then made the following report from committee on trade interests:

TRADE INTERESTS.

It seems to me our business is being fast metamorphosed and what shall we do to prevent and change matters? We are being used by a certain class as a lever and foot stool to enhance their ends, by using certain of the preparations in the trade that belong to the business, having a known market value, by taking these same articles and advertising them at a rate far below what you or I can possibly purchase these articles for, thereby conveying the impression that all articles sold in this place are disposed of at the same low rate. This slaughter of price does not enhance or increase the trade, but usually engenders an ill feeling toward the dealer, who, the customer thinks to himself, (if he does not say it aloud), "I am being robbed." This slaughter of price does not enhance or increase the trade, as we all know that customers do not purchase drugs or proprietary goods for speculation or to set away for time of need, for fear of deterioration which usually is sure to follow. Again my experience has been, and I think you will bear

me out in the statement, that where a party wants only one package or bottle of medicine, you cannot induce them to take two or more.

Our business is a luxury and a necessity. A luxury where toilet articles are purchased. A necessity where medicines are required, and then the smallest portion which will produce the desired effect or result is all you or anyone needs. Therefore, I say, you can only make a limited sale, and you are obliged to have patience until your customer comes wanting that particular article.

How many of you are carrying in stock certain things that you can only sell occasionally, possibly once in six months or a year, and in the meantime deteriorating, and you are obliged to throw them away? I would ask in all reason why should you not have a fair price and percentage for the sale of such articles and not be subject to humiliation by having some one come and tell you that some calico or cut rate place is selling these goods at a less price than you can purchase for? And this same party may probably only want this for once and only once. It is to be regretted that one society has some cut rate individuals connected with it who at times profess not to engage in such ruinous work.

How many of our association have ever thought that the retail pharmacist was the dumping ground without any redress, for unscrupulous patent and proprietary medicine parties, who only care to palm off on you a big line of their articles if you are only responsible and the bill can be collected regardless whether you ever sell or get any returns, not in any way complying with the contract upon which the sale is based? The above business method of Mr. Wind has done more to demoralize the sale of these articles than any adopted.

There is another thing which has been disturbing the drug trade, and some of our friends in the business have been jumped upon for selling what was claimed to be illicit articles. I refer to phenacetate and sulfonal, which I am informed were brought in from Canada, paying import duty at much less price than could be purchased in the United States. The drug journals have of late been teeming with accounts of certain ones being arrested for having and handling what was claimed to be illicit articles of the above.

By referring to quotations you will find that phenacetate is quoted in the United States at \$1.00 per oz., or in 25 oz. lots at 95 cents. While in Canada Messrs. Lyman Bros. & Co., limited, of Toronto, quote Phenacetate Bayer at 35 cents per oz. and a 25 per cent. duty added would make it 44 cents per oz., freight added, against \$1.00 per oz., as above.

Sulfonal by quotations you will find in the United States quoted at \$1.35 per oz., or in 25 oz. lots at \$1.25 per oz. Again the above parties, Lyman, Bros. & Co., quote Sulphonal Bayer at 33 cents per oz., with duty added as understood of 25 per cent., making the cost 41½ cents (in Canada), freight added, against \$1.35 per oz. here, thus giving a margin on this article of 83¼ cents per oz., which is better margin than you get at retail on many of your articles or an equivalent of 200 per cent. wholesale.

The history of these goods, as I understand it, is as follows. A Mr. E. N. Dickerson, of the law firm of Cowen, Dickerson, Nicoll & Brown, 15 Wall street, New York city, claims to hold patents in the United States for the above and goes on to state, "under these patents the only parties having a license in the United States are W. H. Schieffelen & Co., of 170 William street, New York city." From the above you will see all these articles have got to pass inspection by going through the above named house, having their sign manual on every package, to be sold, as they claim, in the United States.

I, for one, question the legality of any such patent, for this reason, that if you can get into the open market of Canada, London, Paris or Berlin, and purchase these articles without any restrictions or any prohibition against the goods, whereby they become contraband, in my opinion you have a perfect right to import them, paying duties and all legitimate expenses, expose and offer them for sale and in no way conflict with any patent. My idea may be wrong, but it does not look otherwise to me and I am willing to be convinced. I also believe in supporting our laws, but, as the above stands, it looks very unreasonable, and if brought before a proper tribunal in the correct light would be overthrown. It does not seem to be common sense and that is the foundation for common law. "That under the act of 1881, a patent could not be granted if it appeared that the applicant was not the original and first inventor or discoverer." Therefore I hold this is void, as this Mr. Dickerson is neither the original or first inventor.

A. A. PARDEE,

Chairman Trade Interests.

Report was adopted.

R. Sauerhering then read an original paper. [See papers following minutes.]

A resolution was offered by C. Widule and adopted condemning the course of certain parties in the United States who control the sale of several patent articles, as follows:

Resolved, That the Wisconsin Pharmaceutical Association most emphatically condemns the exorttions practiced by the

claimed proprietors of the trade mark upon sulfonal and phenacetine. We believe that the price placed upon those articles by the importers amount to an extortion and injustice upon the people of the United States. We are in favor of the destruction of the monopoly upon those articles, that the same may be furnished to the people at reasonable cost.

H. O. Frank was called on and said: "The Milwaukee druggists are fighting the case of W. H. Schieffelin & Co., alias E. N. Dickerson, on the point that a patent claimed and held by them is not legal, as same does not contain true formula of manufacturing "Phenacetine," and that the same cannot be made by the process as given in the formula; in fact the patent does not give a working formula which is required by law."

A number of members spoke on the question. The meeting then adjourned.

Fourth Session.

Wednesday, August 14th, 2 p. m.

John A. Jones, Columbus, and R. M. Bartlett, Albany, were elected members.

Executive committee reported favorably on the amendment of Mr. Sauerhering and the same was adopted. Messrs. E. D. Pardee, Chas. Pfiefer and R. J. Washburne were appointed as said committee.

Paper of Mr. Wehle was read by title and referred for publication.

H. T. Eberle said there was a difference of opinion regarding registry of poisons. Should every sale of carbolic acid be registered?

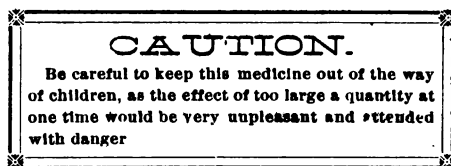
C. Widule remarked: "Inasmuch as there has been considerable fault found with the new law requiring the registration of poisons, it would be proper to discuss the advantage or disadvantage of the same at this time, and everyone present should divulge his ideas freely on the subject. In my opinion the law is rather far reaching and burdensome, as it requires the labeling and registration of such articles as oxalic acid, oil cloves, chloroform, carbolic acid, etc., as well as all preparations and mixtures containing sufficient poison to kill a person. The late provision may include physicians' prescriptions, which really should not be required.

"The old poison law, which was repealed when the pharmacy law was enacted provided for the registration of a few of the principal poisons, such as arsenic, strychnine, corrosive sublimate, cyanide potassium, etc. All other poisonous substances were not required to be registered, but required a poison label to be affixed,

and the purchaser had to be informed of the poisonous character of the article purchased.

"Notwithstanding the repeal of the old law, we have kept up the old method of registering and selling poisons in our place of business, until the passage of the present registration law, with good satisfaction."

W. P. Clarke, of Milton, said that in cases where an overdose of the medicine would prove dangerous he was in the habit of attaching above the dispensing label, another label as follows:



He had never had any complaint from physicians in consequence of so doing.

Quite a number took part in the discussion, the general feeling being that all poisons should be registered.

President Hollister was directed to send a telegram of congratulation to the American Pharmaceutical Association now in session.

F. F. Schaffer, representing the Illinois Association, then addressed the members.

Henry C. Schranck, of Milwaukee, was unanimously elected to fill the place of the late John A. Dadd, as delegate to the American Pharmaceutical Association.

Paper of Alfred Vivian, read by title, and referred for publication and at the same time a vote of thanks was extended to Mr. Vivian for his assistance at Madison before the legislature in behalf of the pharmacy bill.

The next order of business being the selection of names for the next member of the board, Messrs. Rollmann and Hunkel were appointed as tellers and an informal ballot was taken, resulting as follows: G. Naffz, 18; D. Taylor, 13; H. C. Schranck, 14; Eberle, 10; Williams, 8; H. Rollmann, 7; S. Taylor, 7; H. Ruenzel, 7; A. A. Pardee, F. Kamps, C. Giessler, E. D. Pardee, each 5; O. Widule, 4; Geo. Bauman, John Rosch, Washburne, each 3; L. C. Urban, Ladd, Dana, Engsberg, each 2. Thirteen others received one vote each.

Formal ballot was then taken as follows: G. Naffz, 29; D. Taylor, 25; H. C. Schranck, 17; H. T. Eberle, 10; F. E. Williams, 8; H. Rollmann, 6; and twenty-six scattering.

Moved and carried that the three highest numbers be declared

the unanimous choice of the association, and the president announced that G. F. Naffz, of Wausau; David A. Taylor, of Stevens Point, and Henry C. Schranck of Milwaukee, were the names to be presented to the governor from which he was to appoint the next member of the pharmacy board.

John Rosch stated he had heard it said that Mr. A. A. Mayers, of Madison, had a complaint against the pharmacy board, and if so, now was the time to bring it before the association.

Mr. Mayer stated that suit had been commenced against him by the board of pharmacy, for violation of the law, and asked if he could present his case at this time. The president stated that every druggist had an equal right here. Mr. Mayer then read circulars and letters covering his case and received the attention of all, until his remarks becoming of a personal nature he was called to order.

Mr. Joseph Hammel, of Medford, stated that the association had other work to do, and on motion the entire matter was placed in the hands of a committee of five to report Thursday forenoon, the committee being E. D. Pardee, Wausau; C. Widule, Milwaukee; Edwin Sumner, Madison; H. T. Eberle, Watertown, and John Rosch, Menasha.

E. B. Heimstreet, Secretary of the Board of Pharmacy, then made the annual report of the Board.

[See report following proceedings.]

Adjourned.

Fifth Session.

Wednesday, August 16th, 9 a. m.

Called to order with a full house.

H. Mendelborn, Appleton; R. H. Meiding, Stevens Point; W. W. Taylor, Stevens Point; John Cadman, Stevens Point; O. C. Moe, Stevens Point, were elected to membership.

The report of the executive committee on membership was adopted.

The committee on prize papers reported, Huber's prize, paper on insect powder, Conrad Engsberg, Lake Mills.

For the best collection of Wisconsin native drugs, W. J. Wehle, of West Bend.

"Does it pay a druggist to handle cut flowers in his store," A. S. Hipke, Chilton.

To the druggist making the largest number of words out of the words "Hugo Reichel," A. S. Hipke, Chilton.

"The practical value of economy of making our own fluid extracts from ground drugs prepared for that purpose." G. H. Kesten, Fond du Lac.

"Must a druggist always tell the truth?" R. J. Leutsker, Antigo.

The committee on the Mayers case made the following report: After hearing all of the evidence brought before us by Mr. A. A. Mayers and the board of pharmacy it is the sense of this committee that the board of pharmacy be sustained in their prosecution of this suit against A. A. Mayers, and we further recommend that great care be exercised in the selection of an agent by the board, and that the instructions given him be so explicit that no wrong may be done by his work to anyone.

Mr. Mayers addressed the convention and stated that he did not think they would take up his case in this way. He wanted to do what was right. He had used strong language in his circular and would apologize to the board, and especially to the secretary of the same. He was sorry that the secretary felt so about it and did not intend anything. The secretary responded that he did not know this case from any other; that as long as he held his position he would push every case he was ordered to by the board, where the law was being wilfully violated.

The report of the committee was then unanimously adopted by the convention. Half an hour was then spent on discussing Paris Green, and the general opinion was that the days of the "*Doryphora Dcemlineata*" were almost ended, and Paris Green would have a small sale in the future.

The selection of the next place of meeting being in order Mr. David A. Taylor, of Stevens Point, was on his feet, and in a very neat speech invited the druggists of Wisconsin to meet them in 1896. He was also armed with telegrams from his honor the mayor, the fire department, the press of the city, all the druggists and a number of citizens. The endorsement being so general that the invitation was unanimously accepted by a rising vote.

The time having arrived for the election of officers, President Hollister appointed Messrs. Giese, Corbett and Mayers as tellers.

Informal ballot for president was: F. W. Thieman, 14; H. G. Ruenzel, 18; Jos. Hammel, 11; John Rosch, 3; E. D. Pardee, 2; A. A. Pardee, 2; E. M. Wright, 2; A. E. Draper, 3; M. R. Zaegel, C. Widule, C. Giessler, A. E. Eberle, David Taylor, each 1; blank 2.

Formal ballot: F. W. Thieman, 33; H. G. Ruenzel, 19; Jos. Hammel, 8; A. E. Draper, 2; blank 1.

F. W. Thieman, of Sheboygan, declared elected unanimously.

Henry Ruenzel, of Milwaukee, was elected first vice-president, and Jos. Hammel, of Medford, second vice-president, by acclamation. it being unanimous.

Motion made that the treasurer cast the vote for E. B. Heimstreet for secretary.

Mr. Heimstreet objected, calling for a ballot for the reason that some objection had been made as to his work and he would not accept the office unless it was the wish of the members.

Ballot was cast and he, receiving all but six votes, was declared elected.

W. P. Clarke, of Milton, received the unanimous vote for treasurer, and David A. Taylor, of Stevens Point, the unanimous vote for local secretary.

The time of next meeting was fixed the second week of August, 1896.

President Hollister appointed the committees for 1896. See page 4.

The report on the \$500 prize was as follows:

"Your committee was instructed that the various features be valued as follows: Artistic display, 12 per cent; educational features, 35 per cent; quality of drugs, 32 per cent; quality of druggists' sundries, 13 per cent; size and value of exhibits 8 per cent. Total 100 per cent. With this as a basis we find:

	Artistic Display	Educa- tional	Quality of drugs	Quality of sund.	Size & Value	Total.
Jerman, Pflueger & Kuehmsted Co.	13	25	32	13	8	90
Morrisson, Plummer & Co.	8	35	32	11	3	89
Lord, Owen & Co.	6	10	32	10	2	60
Peter Van Schaack & Sons.	6	10		12	1	20

Consequently we have adjudged the prize to the Jerman, Pflueger & Kuehmsted Co."

The judges were three ex-druggists, Hon. T. M. Blackstock, William Schrage and Dr. O. Gutsch.

A unanimous vote of thanks was returned to the pharmacists and the citizens of Sheboygan for their generous treatment and the hospitality extended by them, and the fifteenth annual meeting of the W. P. A. was brought to a close, being the best attended and most interesting meeting in its history.

Papers Presented at Meeting.

FULL REPORT OF ADULTERATION COMMITTEE.

The matter of adulteration has always attracted the attention of pharmaceutical associations, our own among the number. We have always recognized the importance of this question and have deemed this matter of such consequence as to name a special committee to investigate and report upon the same. While we do not wish to assail the work of any previous committee, whatever they have accomplished was due to the meagre resources at their disposal, still we do not believe that the simple issuing of a report at this meeting has brought the desired result.

It is possible that the complete change in the personnel of this committee yearly has been detrimental to the success of this work. In addition the committee have been expected to proceed without any funds whatever. Even though this work should be carried on, on a very small scale, it would necessitate the expenditure of some money.

We should like to make this committee one of service to the druggists, to prevent the sophistication and adulteration that now exists, and in turn the results of this work would be both beneficial to the druggist and his patronage.

The most notable work that has been accomplished in this direction has been that of the New York Association. Some of the adulterations were of the grossest order, and chemicals which we frequently think are perfectly pure because they are manufactured by reputable dealers, were found very deficient. In addition, those products that the Pharmacist is supposed to prepare, did not make any better comparison, so this all shows that a much needed reformation can take place from top to bottom. Let the druggist insist upon quality first and price afterward; usually it is visa versa.

The committee have been able to enlist the Department of Pharmacy, at the State University, in this state. Dr. Kremers and his assistant have volunteered to aid and co-operate with the committee, and the extensive laboratories may be brought into requisition where the work can be carried on successfully. Graduate students are to perform the work, but as stated before, it will be necessary to place some means at the disposal of the committee. We further believe that the committee ought to be constituted for a term of five years, one vacancy to occur yearly and to be filled by appointment as at present. By this method the work can proceed

in a more satisfactory manner, in fact without interruption whatever.

Respectfully Submitted,

A. F. MENGES.
C. E. GIESSLER,
CHAS. GRAVES,
E. S. PURDY,
R. SAUERHERING.

THE METRIC SYSTEM, ITS PROGRESS AND INTRODUCTION.

BY R. SAUERHERING.

MR. PRESIDENT: At this present year, 1895, just one hundred years have elapsed since the then existing standards of weights and measures in France were radically changed by the adoption of the metric system of weights and measures by the French National Convention in 1795.

The Academy of Sciences of France has ever afterwards put forth great efforts to have this beneficent system introduced and adopted by all other nations: to establish a uniform system of weights and measures for them all, that thereby all nations may become a unit on this important matter.

At the meeting of the Academy of Sciences in Paris, 1799, joined by delegates from Spain, Italy, The Netherlands, Denmark and Switzerland, two reports on the metric system were made to the class, one by Tralles, of the Helvetic Confederation, and the other by Van Swinden, were then reported to the general meeting of the Academy, and by that body solemnly presented to the two branches of the national assembly, on June 22d, 1799, together with a definitive metre of platina made by Lenoir, and a kilogramme of the same metal made by Fortin.

The report was adopted by the National Assembly with great enthusiasm, with the expression of feelings, that the genius, the science, the skill and the power of great federated nations are seen joining hand in hand in the true spirit of fraternal equality.

For many years after this memorable convention, the nations of Europe were shaken to their foundation by political disturbances, which excluded any international progress in this peaceful but important matter.

In the year 1869, with a view to the construction of more perfect and uniform standards, and the distribution to different countries, an international commission of weights and measures, composed of scientific representatives of all civilized nations, was formed to meet at Paris.

At the first meeting of this commission, held in Paris, 1872,

the new prototypes of the new standards of weights and measures was decided upon.

The first convention of the general conference for weights and measures, composed of the representatives of the United States, Germany, Austria, Hungary, Belgium, Brazil, Argentine Confederation, Denmark, Spain, France, Italy, Peru, Portugal, Russia, Sweden and Norway, Switzerland, Turkey and Venezuela, (Great Britain not represented), assembled at Paris in 1875. At this convention the new prototypes of the standards of weights and measures, as previously decided upon, were formally sanctioned, and this convention further decided to establish and maintain, at the common proportionate expense of all the governments represented, a bureau of weights and measures, to be located in Paris, this bureau to be under the exclusive direction of the international committee of weights and measures, which latter body shall be under the control of a general conference for weights and measures composed of the delegates of all the contracting governments.

This convention of the general conference concluded its labors and deliberations and signed the treaty the 20th day of May, 1875, which treaty was advised by the United States senate for ratification May 18th, 1878; ratified by the U. S. senate May 28th, 1878, and proclaimed by the President of the United States, September 27th, 1878.

By the published proceedings of the International committee of weights and measures, held at Paris, 1884, the following governments are reported to have adopted, in full or only partially, the metric system, viz:

Adopted and the use made obligatory, by Germany, Austria, Hungary, Belgium, Argentine Republics, Spain, France, Italy, Peru, Portugal, Roumenia, Servia, Sweden and Norway, Switzerland, Venezuela and Japan. Legalized but the use optional, by Great Britain and Ireland and its possessions, the United States, Turkey, and later adopted by Denmark and Greece, not legalized by Russia.

We thus see, that with few exceptions, the metric system of weights and measures is in use by all the nations of the European continent and their possessions and by the other American governments. Only Great Britain and the United States, the two English speaking nations, hold themselves aloof from the long column of metric system using governments.

Great Britain legalized the optional use of the metric system of weights and measures in 1864, and that system is now used in Great Britain in the trade transactions with metric using nations, by literary and scientific association and at many other occasions.

By a late report of the select committee of the House of Commons, appointed February 13, 1895, we observe, that after a very far reaching and vigorous investigation by said committee, the same have come to the conclusion, adopted six to two by the committee, that the adoption, and after two years, the compulsory use of the metric system of weights and measures in Great Britain and its possessions would much result to the benefit of the people, and at the close of the report made the following recommendations:

1. That the use of the metric system of weights and measures be at once legalized for all purposes.

2. That after a lapse of two years the metric system be compulsory by act of Parliament.

3. That the metric system of weights and measures be taught in all public elementary schools as a necessary and integral part of arithmetic, and that decimals be introduced, at an earlier period of the school curriculum, than is the case at present. Report says, teachers and instructors believe it would save one year's schooling to each child.

Dated July 1, 1895.

Read in the House of Commons and ordered printed.

Proving that we can hope that Great Britain will join the long roll of nations, we have adopted and exclusively use the metric system of weights and measures, which would leave the United States isolated on this important matter.

In the United States as early as 1821, Mr. John Quincy Adams, then Secretary of State, made the following extract from the report to the house of representatives:

"Perhaps when the spirit that urges to the improvement of the "social condition of man shall have made further progress against "the passions, with which it is bound, and by which it is tram-
"melled, then may the time for reviving and extending that gener-
"ous and truly benevolent proposal of the constituent national as-
"sembly of France, and to call for a concert of civilized nations to
"establish one uniform system of weights and measures for them
"all."

The Hon. John A. Kassen, chairman of the congressional committee of coinage, weights and measures, made a flattering report of the benefit to the people by the adoption of the metric system, to the house of representatives of the thirty-ninth congress in 1865. And in 1878, the Hon. Alex. H. Stephens in his report to the house of representatives of the forty-fifth congress, on coinage, weights and measures, used the following expressions:

"We are irresistibly led to the conclusion, that the metric sys-
"tem of weights and measures is destined to become, in the near

"future, universal among all civilized nations of the world. Its adoption in the United States, and its obligatory use in all the government departments, is believed by many to be a fixed fact, at no very distant day."

The metric system was legalized by the United States in 1866, and is now in use in the U. S. marine hospital service, in the foreign business of the postoffice, in the United States coast and geodetic survey, in the U. S. pharmacopoea, and to some extent in the geological survey, the Mississippi river survey, the international weather charts and bulletins of the U. S. Signal service, in reports of the U. S. census of 1880, and almost exclusively used in chemistry and many other sciences. It was also urgently recommended by the late James G. Blaine, then secretary of state, in his letter transmitted to congress by the president, July 10, 1890.

We thus observe that the metric system is working its introduction and use by its merits wherever it is well known, and we may be justified to the hope that the people of the United States will add one more centenary celebration, by having congress speedily pass a law, making the exclusive use of said system in all transactions in the United States compulsory at the end of this century.

The following resolution is herewith offered:

Resolved, That it is the opinion of the Wisconsin Pharmaceutical Association, that the use of the metric system of weights and measures, in place of the ancient system now used, would be highly beneficial to the whole people of the United States, and this association will work in harmony with the American Metrological society and other societies in petitioning congress to have the following enactment made:

To the Honorable the Senate and House of Representatives of the United States, in Congress assembled:

The undersigned respectfully prays your honorable body to make the following enactment, which, except for the postponement of five years in the date of its going into effect, is the same which was submitted for the consideration of the fifty-first congress by the secretary of state, in his letter transmitted to congress by the president, July 10, 1890.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That on and after July 1, 1896, the metric system of weights and measures, authorized by the act of congress approved July 28, 1866, shall be used exclusively in the customs services of the United States. And that on and after July 1, 1900, the use of the metric system of weights and measures shall be compulsory in the

United States at all transactions, where weights and measures are used, in place of the weights and measures now in use in the United States.

INSECT POWDER.

BY CONRAD ENGEBERG, LAKE MILLS.

The plants which furnish the insect powder of commerce are *pyrethrum carneum*, *pyrethrum roseum* and *pyrethrum cinerariaefolium*. *Pyrethrum carneum* and *pyrethrum roseum* are found in Western Asia from Persia to the Caucasian mountains, and supply what is known as Persian insect powder. *Pyrethrum cinerariaefolium* is found in Dalmatia, a province of Austria, on the Gulf of Venice, and furnishes a superior quality of insect powder. They belong to the natural order composite, are hardy perennials and in appearance resemble the chamomile plant. The flowers are from one to one and one half inches broad, have an imbricated involucre with a brown margin, a convex naked and solid receptacle about twenty-four ray florets and a large number of yellow disk florets.

Insect powder consists of the powdered or ground flowers of the above three plants. That obtained from *pyrethrum carneum* and *pyrethrum roseum* is known as Persian insect powder. That from *pyrethrum cinerariaefolium* is known in commerce as Dalmatian insect powder and is of superior quality. This plant is also cultivated in California, and as more care is used for the preservation of the color and the volatile oil during the process of drying, that in Dalmatia, the California flowers are said to be superior to the imported. In color, the insect powder of commerce, varies from yellow to yellowish brown and yellowish green, the yellowish brown being considered of superior quality, and the bright yellow of inferior quality, the bright yellow color being due to an artificial coloring matter. Insect powder, while it is said to cause some confusion of the head in those who sleep in close rooms where much is used, it is not an active poison to man. Upon the insects, however, which infect human beings as well as animals, it acts as a violent poison and is very destructive first stupifying and then killing them. It is scattered over animals, upon beds, about apartments and in other ways to destroy insect life. It is also a certain destroyer of the cabbage worm which is killed almost instantly from a little powder blown or sifted on its body.

The pure Dalmatian insect powder properly applied, is one of the best in my judgment. It is the very best insecticide in common use, but much of the insect powder of commerce is quite useless as an insecticide, and for this reason the consumption of in-

sect powder is not as large as it should be, or what it would be if it always met the promised requirements. It is therefore necessary that we should use the proper care and caution when purchasing our supply of insect powder. It should not be purchased in bulk in paper packages, because if it is a little lower in price, it is very apt to be much inferior in quality. It should be purchased only in unbroken packages with the name and trademark of some manufacturer of undoubted reputation. It is not a question of how cheap can we buy insect powder, but how cheap can we buy the best on the market and please our trade.

I was long a popular believer, and we still hear it said that insect powder is not poisonous to insects, but kills them mechanically by closing or filling their breathing apparatus, but this is an error, as it can be easily demonstrated by exhausting a little of the powder with warm water and afterwards drying the same and using it on flies. It will not kill them, while the infusion is poison to them.

The active principle of insect powder has not been positively determined. Some investigation claim it to be an alkaloid, others a resin, and still others a volatile oil, but it is known to be a substance soluble in water and alcohol, as the infusion and also the tincture are poisonous to insects and the dry powder after exhaustion is harmless to them.

The usual mode of application of insect powder is by dusting it through a sprinkle top can, and by means of a small blower, called an insect powder gun, which, in its varied forms, is the best means for applying the powder.

An easy and quite practical test for quality of insect powder is as follows: Take a half ounce vial, put in four grains of the powder, capture a fly and put him in the vial also; if the powder is of the best quality your fly will be stupified in about one minute and dead in three minutes. The longer time it takes to kill the fly, the poorer is your powder. Do not close the vial except with a perforated cork or small piece of screen.

*THE PRACTICAL VALUE AND ECONOMY OF MAKING
OUR OWN FLUID EXTRACTS, TINCTURES AND
OTHER PHARMACEUTICAL PREPARATIONS
FROM THE GROUND DRUGS FOR
THAT PURPOSE.*

BY G. H. KESTEN, FOND DU LAC.

In other words a little more direct, we are about to consider the practicability and profitableness of making our own pharma-

ceutical preparations instead of procuring them from manufacturers.

About the first thing that confronts us in considering this subject is the well known saying that there are usually two sides to a question. To evade proper recognition of this rule would savor of little appreciation and much ungratefulness toward the manufacturers, which indeed would be far from the prevailing sentiment of pharmacists, for much that has been added to the chapter of pharmaceutical progress owes its birth-place to a manufacturer's laboratory, and no one can appreciate this more keenly than the pharmacist.

It behooves us then to pay due homage to our brethren, the manufacturers; at the same time, what we are doing at home in our own laboratories is a matter of the most vital interest. These laboratories, though humble they may be in their equipment and capacity, ought to be the nuclei from which develops unlimited prosperity for us.

The pharmacist's laboratory, regardless of size, may well be called a living fountain from which issues constantly new supplies and fresh stimulus for his business. Undoubtedly many of you have made this discovery in your experience as successful pharmacists. It is safe to assume that no pharmacist, having spent time and ambition in the acquirement of practical pharmaceutical knowledge because it promised him opportunities for research and the calling into existence of many beautiful and useful things, could look on with indifference to see the shelves of his establishment loaded with manufacturer's products when his own ought to be there; certainly, we would be humiliated to find him among our number.

Having then, in brief words, admitted the need of making our own pharmaceutical preparations, let us take a step forward and consider more closely the subject before us, namely: the economy and practical value of making our own fluid extracts, tinctures, etc.

The economy of making our own preparations must, to some extent, be considered with reference to locality, that is, where it would be economy for one to manufacture a line of fluid extracts, it might be just the reverse for another, because his particular location in business does not warrant him the same liberal consumption of the article. For example: if your trade demands only a pound or two of fluid extract cascara sagrada per annum, it would be more economical for you to buy that extract even if you must pay the price of \$2.25 per pound; but, if you are using from five to twenty-five pounds per annum it would be decidedly profitable for you to make it, which you could do at an ex-

pense of seventy-five cents per pound and have money left.

While we could enumerate a list of extracts that would be profitable to make, we could also make up a list of such as would not be profitable. The same would hardly be true of tinctures and other pharmaceutical preparations, which as a rule can be prepared just as economically in small quantities as in large ones. It is not necessary here to produce a list of preparations showing comparative cost of our own products and that of the manufacturers'. The best proof we can get of the economy of our own manufacturing is from experience. Make your preparations and compare their cost with the price list of your manufacturer and you will have more proof than you care for. No man can work for nothing and pay his expenses, and when you buy manufacturers' products you pay a liberal profit on them; that profit largely belongs to you as a competent and practical pharmacist.

As we have said before, economy for one may not be economy for another. To carry that just a little beyond our subject, we may reach a point where the making of our own preparations would not be economical at all. For example: it would not be economy to make our own sugar coated Bland's pills when they can be purchased from reliable manufacturers all the way from four to ten cents per hundred. But it might pay you to make your own quinine pills even at a higher cost than you can procure them from the manufacturers. Certainly it would pay you well to make your own syrup of hydriodic acid at a cost not exceeding 20 cents per pound when you must pay from 40 to 65 cents for the manufacturer's product. What is true of syrup hydriodic acid will apply to a large percentage of other syrups, tinctures, spirits, solutions, ointments, etc. The question might here arise as to the purity and reliability of drugs obtainable for manufacturing purposes. Your knowledge of a good quality of arnica flowers would not allow you to make a tincture of something inferior and we all know it is more difficult to ascertain the purity of a compound than of a simple drug.

In answer then as to what extent is it economical and practical for a pharmacist to make his pharmaceutical preparations, we must say that his own experience and good judgment should dictate to him. For the benefit of those who have not been believers in the theory of the economy and practical value, with reference to the making of their pharmaceutical preparations, let it be said that there is no argument so convincing as a personal trial on their part.

But let us now briefly consider the effects that the making of our preparations have on the trade directly. A person will pass a

half dozen drug stores all keeping quinine pills and extract cascara sagrada to purchase these remedies of you. Why? Just because you are the oldest or most handsome druggist in town? Not at all, but because it is known that you prepare these things yourself and they would rather have your own preparation than that of some one else hundreds of miles away.

Again you are favored with prescriptions from the medical profession when your competitor is not. Why? Because these men knowing of your competency as a manufacturing pharmacist prefer your preparations to those from away, and in such recommendations lies your success and fortune. Besides the enumerated advantages that the making of your own preparations has, there are still others. The making of pharmaceutical preparations is a constant source of education to the pharmacist himself as well as to the young apprentice, whose highest ambition ought to be the perfecting of himself for the degree of a practical pharmacist. It being a source of education, we find it productive of new stimulus for investigation and making of many useful things. And it is along this line that we must look for a high standard of Pharmacy. Lastly we may have that sense of gratification that comes to the pharmacist as the unsolicited reward of his labors. What is more beautiful and gratifying than to create something with your own hands; to be conscious of the fact that you have at least offered your assistance in the great field of pharmaceutical progress?

SCALE PREVENTION IN STEAM BOILERS.

BY A. WANGEMANN.

MR. CHAIRMAN: Every thinking pharmacist has the fact brought home to him in late years, both in his own business and through the discussions of pharmaceutical organizations, that our profession is in a rapid evolution, brought about by general economic conditions, which, to a large extent, are beyond the control of the individual and of any associations of individuals. I need not dwell upon the corporations which have made the home production of galenical preparations well nigh unprofitable, and furnishing, especially the country physicians, with easily portable concentrated medicaments, have cut deep in the prescription counter trade, besides making the general public familiar with ready made medicines, all to the permanent detriment of our ancient profession.

The gradual but inevitable drifting of the sale of patent medicines and other commercial specialties out of the pharmacies in the dry goods department and general country stores need only be mentioned.

In this silent but fierce fight for the survival of the fittest it may be well to come to some definite conclusions as to the general policy to be pursued by the *individual* pharmacist, and to the weapons; first, his position in the community, and second, his scientific training gives him to keep on top.

I do not address these remarks to those who, having once secured a licentiate certificate, or a sheep skin from some college or university, are content to rest on their laurels for the balance of their natural life and do not keep up with the rapid pharmaceutical progress in these rapid times.

I do address myself to that large class of pharmacists eminently fitted to open up and carve out for themselves new avenues of commercial and scientific success, when, as stated before, old conditions vanish and something must be done, and done at once to meet *present* trade conditions.

I honestly believe that the confined life, and long hours, the lack of physical exercise, have more effect on the livers of many of the brethren as they are likely to acknowledge, and indirectly on the passive hopelessness and inactivity against the various encroachments on our legitimate business.

Now, Mr. Chairman, in looking for remedies, we might profit by the example of many progressive druggists in this country and older civilizations than ours, and take stock of the opportunities presenting themselves in every community, likely to be turned to our financial and professional advantage, opportunities, I say, which are not now considered as available by the majority of druggists.

With a comparatively insignificant outlay of money, and some hard work and study, we might as well take advantage of, and reap in our respective communities, the results of the late researches in hygienia, in agricultural, and in technical chemistry we might furnish to the people and country press, short articles on matters of interest to the people and generally keep in touch with the interests not only of the physicians, but also of the farmers, the manufacturers, the tradesmen, furnishing them advise, improve on their processes in the light of the latest discoveries of this and other lands: analyze the water supplies, raise a kick against unsanitary conditions and generally make ourselves felt as an intellectual force both for the profit of our bank accounts and of the community at large. To my mind, at least, in this direction lays a way out of many of the present disadvantages which we have brought about mostly ourselves by confining our endeavors to almost exclusive commercial ends. And when I say that any grocer can sell Beef, Iron and Wine, tincture of arnica, Epsom salts, quinine pills,

Paris green, wall paper, glass, paints, etc., just as well and cheaper than we can and make a higher profit, while he could certainly not fill a prescription, analyze a boiler feed water, advise on the preservation of cider, butter, etc., compound a good furniture polish, or clear up prejudices of a hygienic nature in the treatment of infants, etc., through the local press, I think I have illustrated the points sufficiently.

Abundant literature of interest to stock raisers, dairymen and farmers, may be had from the agricultural department and state institutions gladly for the asking. It is afterward only a matter of study to turn the facts thus assimilated to advantage as professional advertisement and in dollars and cents as well. In the same way the latest literature on technicochemical questions, uppermost in your respective communities may be acquired and digested, and thus you may succeed in professional lines, as pointed out time and again by the brightest pharmacists of the land, where at present the patent medicine, the pharmaceutical laboratories, the paint, the glass, the wall paper, the self prescribing physician, syndicates, etc., encroach on your former base of operations, and will continue to do so, no matter what agreements they enter into, no matter what artificial trade restrictions are schemed, only to be abandoned for the good and sufficient reason that whenever any syndicate or corporation has interested millions of dollars in a drug speciality they are bound to earn the fixed charges and dividends, and when, as in the instance of Hood's Sarsaparilla it pays better to sell at 69 cents retail. It will be done and is now done all over the land. Simply as an instance how the scope of a retail druggist, especially in country towns with manufacturing interests may be enlarged, I beg your attention to a short sketch of the latest facts in regard to the question of

SCALE PREVENTION IN STEAM BOILERS.

When it is understood that a scale of one eighth of an inch impedes steam generation sufficiently to make a difference of about fifteen per cent. in fuel bills, the importance of the question will be appreciated by every steam user in your community.

The principal *incrusting* solids are the oxides including Silica, Alumina and Oxide of Iron, Calcium Sulphate and Carbonate, Magnesia Sulphate, Carbonate and Chloride. The principal *nonincrusting* solids are the Alkaline Carbonates, Sulphates and Chlorides. The important fact that the Fluoride of Soda and other Salts of Fluorine could be used to convert these carbonates and sulphates of Lime and Magnesium in *non-crystallizable Fluorides*, which are *insoluble* in water has been known for some time, and lately been thoroughly investigated for its commercial application by Dr.

Charles A. Dorennnes, of New York, and myself. The draw-backs being, that till lately these Salts could not be manufactured at a price, making them commercially available *for the purpose as anti-incrustating salts*. This difficulty being now overcome, the following facts might prove interesting, viz:

Experience has shown that about one-fourth of the theoretical quantity of Fluoride Soda calculated is, in most boiler feed waters, sufficient to prevent formation of scales, the result being an innocuous soft precipitate *which does not adhere to the sides of boiler*, and being according to the Feedwater a varying mixture of Fluorides, is heavier and about twenty-five per cent less in bulk than a carbonate precipitation, which will later, according to the type of water used, form either a *tight porous carbonate scale or cake on the bottom of the boiler*, the main danger being that these carbonate sediments losing their water of crystalization, *harden* and eventually "*bulge*" the boiler.

The magnesia salts in feed waters are even less tractable, forming a *thin, hard, glassy scale* in some instances only removable by a cold chisel, but tractable by being *converted chemically in Fluorides* preferably treated in *forewarmer*. In this connection, Mr. Chairman, I draw the attention of the profession to the fact that the steam of water distilled over Fluoride Soda is absolutely pure 420 and preferable to Alum for that purpose, as suggested by Hager, four ounces (an excess) for every thousand gallons of water to be distilled, rejection of the first part going over, as directed by the U. S. Ph. The specific action of Fluorides as *germicide* is taken advantage of in this treatment to counteract the possible contamination of the water used in distillation.

As a practical illustration of the economy of Fluoride Soda for the purpose I might give you an average analysis of Lake Michigan water as taken at West Fortieth Street, Chicago.

A.	Carbonate of lime, grains per gallon.....	4.46
	Carbonate of magnesia, grains per gallon.....	2.20
	Sulphate of lime, grains per gallon.....	0.30
	Oxide iron and alumina, grains per gallon....	0.02
B.	Alkali chlorides, grains per gallon.....	0.22
	Alkali sulphates, grains per gallon.....	0.28

A. Incrustible solids. B. Non-incrustible solids. Pounds of incrustible solids in 1000 gallons 1.04. To prevent scaling in boilers using this water, it is practically sufficient to add 1 oz. of fluoride soda per 1000 gallons, a special grade being made for this purpose containing two per cent alkaline carbonates, the desideratum being to have the salt strongly alkaline for technical reasons,

It will be noticed that old Lake Michigan offers us for drinking and industrial purposes, as pure a supply as can be found anywhere, the question of sewer contamination being now successfully solved in almost every city on its borders.

For the average Wisconsin water I find 2 oz. fluoride sufficient for every 1000 gallons evaporated, yet it is best to settle the question in special instances by calculation from feed water analysis. For the Dakotas I found artesian waters holding as high as 80 grains incrusting solids per gallon, while some Iowa water analyzed, came up with two per cent free sulphuric acid among other matters. Now, Mr. Chairman, in all such cases of excessive amounts of lime and magnesia salts, as in cases of excessive amount of chloride soda, etc., *the point must not be lost sight of*, that even an excess of *non-crystallizing solids is possible*. Such waters from the bugbear of consulting chemists since the free generation of steam is impeded by the growing specific gravity of the water. In such cases, various mechanical contrivances are resorted to in conjunction with the chemical treatment, the nature of which it would take too much time to enlarge upon.

The literature and commercial history of the scale prevention question is quite interesting. Hardly a substance exists which has not been experimentally used in this connection. While we are troubled with the pretensions of patent medicine fakes, *engineers are troubled more so*. While we may form reliable conclusions, the merits of secret nostrums, engineers have *not* the scientific training *to decide what to use*, and I do not see any reason why we should not solve this problem for them since the chemical questions involved are decidedly within the *legitimate scope of our profession*. I will now in a few words outline what has been done in this question up to date:

You will find a majority of secret boiler compounds to consist of *watery solutions*. This form is used because the active ingredients (in most cases soda ash) can thus be sold *at excessive prices, without fear of detection*. Quite a number of these compounds, which are marketed by extensive advertising, consists of tannin solutions with various percentages of soda ash, carbonate soda, glucose, etc. The principal sources of tannin used are sumach extract and catechu. This type of S. C. boiler compounds will certainly result in the formation of carbonate scales, forming dark shiney scales which cannot be detected by superficial examinations. Tannin being an oxygen carrier, its use in this connection is prejudicial to the life of the boiler.

Free tannin attacks the sides of the boiler and acts the same way with carbonate soda in excess.

The use of soda ash and carbonate soda should be discouraged. The commercial carbonate soda contains varying amounts of water of crystallization up to 60 per cent., and it ought to be the policy not to add excessive amounts of chemicals of this type, because they form bulky precipitates of carbonates, which are liable to form cakes as set forth elsewhere. These salts make the feed water excessively alkaline, *taint the steam*, and in being *carried over*, precipitate in most inconvenient places *throughout the plant* such as feed pipes and radiators and losing their water of crystallization, form *carbonate scales*.

Sulphites can only be used to advantage in sea water. Barium chloride in this application forms insoluble barium sulphates, adding this to any scale already formed.

Tallow and oils are decomposed while the fatty acids formed act injuriously on the fittings of the plant and taint the steam.

Paraffin and paraffin oils have been used but act only mechanically. There are quite a number of vegetable matters used, principally potato peelings. I suggested to one engineer using this material, to use also some Irish potatoes, cabbage and soup bones, so as to get an Irish stew or soup, but he has not acted on the proposition. These matters do not prevent scaling or they would be in general use. I noticed the use of spent tanbark with a percentage of sal soda, but this coming under the head of tannin was not successful.

Kerosene and allied matters even when fed in by special machinery in minute quantities, loosens the pipe connections and has been generally abandoned when tried. Now Mr. Chairman, in summing up, we find the following facts as essentials: The inside of the boilers should have no projections or old scale to favor the formation of new crystalized scale. The quantity of chemicals used ought to be small so as not to raise unduly the density of the feed water. The scale preventer must be alkaline. It must work both chemically and mechanically. It must form a mud or sluge which does not adhere to the boiler. It must be so cheap that it saves more in fuel bills than its cost, compared with such matters as are now used. All these facts being established as to the use of Fluoride Soda, I can see no reason why the profession should not take up this question in Wisconsin as well as elsewhere and solve it in the line of thoughts expressed in the first part of this paper. In this connection the use of Fluoride Soda for water purification, especially of waters tainted with sewerage may be considered.

While this and other salts of fluorine are too expensive to be available on the large scale in city water works they may be used

to advantage for use in water filters for the arts and for private filters.

Pasteur filters, filter paper filters, and various contrivances of mechanical devices retain the suspended vegetable matters but allow the passage of chemicals in solution. If used for any length of time they are clogged up, and while becoming useless as rapid filtering mediums they are a breeding place for bacterial development, thus creating a liability for general infection.

Now by treating the water with fluoride soda all the calcium and magnesium salts are precipitated as well as the organic matter contained in the sewerage contamination. The latter because fluorides have the property of destroying bacterial life of the types present in sewerage.

Thus it will be seen that the fluoride treatment of turbid and contaminated waters is preferable to the alum treatment. Waters treated with fluorides contain as a rule pure H₂O and traces of alkaline carbonates, sulphates and chlorides.

A. WANGEMAN.

Wisconsin Licentiate No. 1102.

Consulting Chemist.

WHAT PROPERTIES CONSTITUTE THE THERAPEUTIC VALUE OF COD LIVER OIL.

BY DR. JOS. HERB, OF MILWAUKEE.

Answer to Question I.—Two opinions exist over the therapeutic value of Cod Liver Oil. Some say, that its properties are due to a small amount of iodine and that the purified oil, because it is deprived of this element, has no more effect. The others declare, that not this very small quantity of iodine, but the large amount of free oleic acid, contained in the oil produce its therapeutic effect and this opinion has found its expression in a preparation, called Lipanin, a mere mixture of pure oleic acid with olive oil.

Question II.—In reply to question II, there is no doubt that peptonates and albuminates of iron are chemical compounds. On mixing, for instance, a neutral filtered solution of peptonate with a lege artis prepared solution of oxychloride of iron, nothing remarkable will be seen and the liquid contains now the hydrochlorate of peptonate of iron. After dilution with much water, caustic alkalis produce a flock voluminous sediment, because, peptonates of iron itself, now deprived of its acid, is insoluble in water. Only, if the neutralizing point has been reached, that sediment becomes granular. Under the same circumstances oxychloride of iron produces instantaneously a granular sediment of hydrated oxyde of

iron $\text{Fe}(\text{OH})_3$, that settles in the mother liquid 3-4 times as quick, as peptonate of iron does, and which has at the same time a darker appearance than the latter.

Having washed the precipitated peptonate of iron with distilled water, till the washings leave no residue on evaporation and a few drops of nitrate of silver solution show the absence of chlorine, both muriatic acid and caustic alkalies produce on heating, a clear dark brown solution, since pure precipitated hydrated oxyde of iron yields only with muriatic acid solution and wants a much longer time to do so. That shows, that the carefully washed and pure precipitate of peptonate of iron consists of hydrated oxyde of iron chemically connected with peptonate, as distilled water could not remove it. The washed peptonate of iron, standing in the open air, produces, after some time, the well known penetrant odor of sulfide hydrogen, a further proof that the sediment contains an organic compound.

MUST A DRUGGIST ALWAYS TELL THE TRUTH?

R. J. LEUTSKER, ANTIGO.

Evidently the author of the question desires to know, whether it is prudent, proper and beneficent in every case to tell the truth. There are certainly no laws in this state, making it compulsory, or prohibiting it. But we have confidence enough in the grand army of pill makers, to do such a thing as telling anything but the truth unless in a very hard pinch, and then of course it would only be a little innocent, white — you know, perfectly harmless.

Turning our thoughts to the question at issue, would say, that we honestly believe it to be the best thing in every instance. Where one or the other must be told, tell the truth in preference to a falsehood. If questions are asked concerning your goods, although they may be impertinent, tell them just what the goods are to the best of your knowledge; be frank and honest in the matter. If they contain a flaw of any kind, whether it can be noticed or not; rather tell your customers and sell it at some discount if necessary. Never sell an inferior article for better than it is; don't misrepresent your goods to anybody; sell them at what they are worth with a fair and honest profit; never tell your customers you are selling this or that article at cost when you make twenty-five per cent profit.

Not long ago a lady entered the store with a prescription to be compounded. After handing it to me she inquired whether it contained quinine, saying that if it did she would not have it put up. To say no, would have been telling her the opposite of the truth,

for it did contain quinine, and good sized doses at that; but without beating around the bush I told her it did, at the same time explaining to her in a courteous manner that we thought it necessary, otherwise it would not have been prescribed. So she finally consented to have it compounded. Had we told her otherwise she would very likely discovered it later on, and chances are she would never have entered the store again, probably talk to her friends of the deception, but a few words of explanation made it all satisfactory.

Very often questions are asked concerning our business. It may be something you don't want to disclose, and it's nobody's business but your own. In all such cases be just as frank to refuse an answer. This same line of thought may be applied to every other branch of business. Through close observation for years we have noticed these undisputed facts. As a rule the business men that can be relied upon for their straight honest business principles, and are known for truth and veracity, are the men who make their mark, they wear well and make their business a success wherever they go. Of course there are men who make money, and seemingly prosper, men without principle who misrepresent their goods if circumstances allow them to do so, advertise their immense bargains, but go there and make a purchase and you are bit, especially on a class of goods you are not familiar with. They very often do better than an honest dealer. But as a rule they do not last, they have not the staying qualities. People have no confidence in them and they finally go under. Look at your bankrupts, as a class, what are they? Mostly scoundrels, dead beats, cheats and liars, beating their creditors out of their honest bills whenever they get the opportunity. We therefore stand on the side of truth. Tell it at any cost. You cannot afford to do otherwise. It will stand the test of time, it will advertise your business, and make permanent customers. To illustrate this fact just put the shoe on your own foot for a while. You are purchasing an invoice of drugs, stationery, or whatever it may be. Your goods come and they are unpacked. The first thing you see is something you did not order. Next thing you notice that a certain article you bought, is not as good as the sample. Your essential oils are adulterated perhaps. How often will you buy goods of this firm? We are of the opinion that the next order will go somewhere else. On the other hand, if you can always depend upon getting just what you order, whether by mail or sample, and it is always up to the standard, that is just the firm I want to deal with, and have no doubt but all agree with me in this respect. Experience is the best teacher. Every druggist is a good customer. Judge by your own experience.

Now then to come to some conclusion. Must a druggist always tell the truth? It depends entirely upon yourselves. As already stated, it is not compulsory by any act of legislation. The question is now, do you want to make your business a success. Do you place any value on your character and manhood? If so then we consider it of the utmost importance for the druggists to answer in the affirmative. Looking at it from a business standpoint, the man who tells the truth will do business and prosper, while the other makes his assignment, and has to shovel dirt and buck wood the rest of his days.

INTRODUCTORY REMARKS MADE BY EDWARD KREMERS PRECEDING THE READING OF HIS PAPER.

As a member of your committee to the American Pharmaceutical Association for several years, I should like to make a separate report which could not very well be included in the general report of the committee for this year. I refer to the position of our national association toward pharmaceutical education.

At the Chicago meeting in 1893, the following resolution was introduced by Prof. Hallberg:

Resolved, That the following conditions shall determine what constitutes recognized colleges of pharmacy, that is, the requirements for graduation are: 1st, age 21 years; 2d, experience in pharmacy, four years, including time at college; 3d, two courses of at least six months each, extending over more than one year.

In the discussion which followed, the first speaker, Mr. Ebert, a member of the same college, remarked:

"I do not think that our time should be taken up with a discussion of this kind, because it seems to me to hinge on the old Chicago fight."

Mr. Ford in commenting on the resolution said that "it is vague and none of us understood it." It was referred to a committee of three. This committee at the Asheville meeting last year recommending that Prof. Hallberg's resolution be rejected and submitted two resolutions, one of which might be adopted by the association.

The first outlined the general principles of a course for the degree of Ph. G. The second referred the matter to a large committee. The second resolution was slightly amended after a prolonged discussion and adopted at the close of the session.

This committee, consisting of a member of each college or school of pharmacy and of three members of the association not members of any college or school, is expected to report at the Den-

ver meeting of the national association, simultaneously in session with our state association.

As a member of this committee I have given expression to my opinion on this important subject in a paper to the American Pharmaceutical Association.

As a member of your committee to our national association I deemed it but right to inform you of the position I take as a representative of your school of pharmacy.

**THE POSITION OF THE AMERICAN PHARMACEUTICAL
ASSOCIATION TOWARD PHARMACEUTICAL
EDUCATION.**

BY EDWARD KREMERS.

At no time during the entire history of pharmaceutical education of this country have greater strides been made toward reform than during the past few years. Hardly a college or school of pharmacy within the entire length and breadth of this country which has not only announced improvements in its courses, but has vied with an envious eye to outstrip its neighbor, if not in requirements at least in degrees to be conferred. Traditions of the past have been thoroughly ventilated. Conditions have changed, and with the change of conditions the *raison d'être* of the requirements of well nigh colonial days has vanished. Institutions that were founded by "impractical" university teachers have proven their right of existence to such an extent, that those who criticised them in former days, though still ostensibly maintaining their earlier grounds, are in reality undermining their own foundation by unostensibly accepting the ground of their supposed opponents. A quiet revolution is taking place while the attention of the pharmaceutical public is being held by the sound of brass and tinkling cymbals. There is a great stir about the guinea's stamp. Here graduate, there doctor, and the clatter of intellectual arms, of the pen and printer's press is so deafening, that he who does not dive beneath the surface of this commotion must have experienced the truth of the adage: "Es wird mir bei alle dem so dumm als ging mir ein Muhlead un Kopf herum." The arguments designed to attract the multitude and based on dollars and cents will not stand the test in the crucible of experience. The assaying historian will remove the slacks from the baser metals until there remains nothing but the regnules of the nobler ones. He will smile at the confusion of pharmaceutical degrees, cast them aside and dwell upon the value of courses of study, and of methods of teaching in writing the history of the present time.

That at the end of this century, pharmaceutical education is undergoing a quiet revolution, which is almost being lost sight of while men are discussing the value of degrees, has already been stated. To this quiet revolution, attention should be called at this critical period. If the American Pharmaceutical Association should go on record as having given its attention to the value of degrees while having overlooked the true inwardness of any and all education it would but make itself the ridicule of future generations. The time is ripe for a bold step to be taken. On all sides educators are giving increased attention to the improvement of professional education. Engineering is taking the lead. Law, theology and medicine are vying with each other to raise the standard. Pharmacy is not backward. Courses are being strengthened and new degrees offered everywhere.

The fact that one pharmaceutical college after another is proclaiming new degrees seems to indicate that the changes in pharmacy are meant to be more radical than those in any other profession. Practical experience was formerly the *sine qua non* of pharmaceutical education. The only school which years ago required no practical experience for its degree was considered the arch enemy of all pharmaceutical progress. This school has not only come to stay but the number of similar institutions is growing every year. The oldest college of pharmacy, the bulwark of the educational ideas of the past, today offers a loop-hole through which the non-experience man may creep. Ostensibly not, for in payment of its two identical courses it offers two different-degrees. The man with experience of selling soda water and cigars is entitled to the doctor's degree, whereas he with possibly the better education and who spends his time more profitably at college is dismissed with the modest degree of pharmaceutical chemist. Will not this college confer upon its pharmaceutical chemists having acquired the requisite practical experience *after graduation*, the more ostensible title of Doctor of Pharmacy?

During the past few months three state universities have quietly and modestly announced their intention to offer four year courses with but a modest compensation in the way of a degree. That which was ridiculed as the mirage of a pharmaceutical dreamer only a year ago has today become a reality which pharmaceutical educators cannot afford to ignore. The changes so widely advertised are but patch work, improvements of the old it is true but chiefly in the line of antiquated ideas. The modest announcements of Ann Arbor, Champagne and Lawrence involve such radical changes that can but rouse to enthusiasm the most sanguine. A course that demands a high standard of admission,—that places

the pharmaceutical student in the same rank with the academic has this year received the endorsement of three large universities.

To lay aside for a moment the thoughts about older comers and their possible improvement, about the attempts to secure a compromise course which will be practical and please all, about the value of degrees and to give your attention to the outline of a course which all pharmaceutical schools should strive after is the bold request of the writer. The American Pharmaceutical Association, cannot without losing its dignity, recommend a course which like the tariff, will be changed yearly by tinkering politicians. The course which the American Pharmaceutical Association can recommend must be one which will have a permanent value, an ideal over which pharmaceutical educators may glow with enthusiasm and which will not be rejected by the highest educational tribunal of our country.

A year ago the writer discussed in detail some of the reforms necessary in pharmaceutical education. The conclusion arrived at was that *the pharmacist must be placed on the same level, educationally and socially with the physician, the lawyer, the theologian, in fact with any learned profession.*

Educationally the pharmaceutical student can attain his goal only by taking a complete college or university course of equal educational and cultural value with the very best offered in letters or science. To suggest such a course for serious consideration, not on an ideal, but on a practical basis, is the object of this paper.

The fundamental requirement of such a course like that of similar courses in letters, sciences or the arts is a thorough preliminary education. What this preliminary education is to consist of need not be decided by the writer nor by the American Pharmaceutical Association but may well be left to the faculties of universities or their committees on accredited high schools and academies. The requirements may and will slightly differ in different states. The older states may require more, the newer states less. Here the committee of seventy or like committees of our National Teachers' Association, can and will do more to make requirements uniform than all pharmaceutical associations taken together could ever accomplish. This alone need be said that the requirements for admission to the course in pharmacy should not be less than those demanded for admission to the science courses of the same institution. That such a requirement would practically rule out the apprentice and substitute a good preliminary education for bottle washing and similar requirements of practical experience would be merely a matter of rejoicing and congratulation.

Universities, as a rule, find that the preparatory high schools

and academies do not prepare sufficiently for the pursuit of more than the elementary sciences and in some respects not even sufficiently for these. Thus, for example, high school mathematics is not regarded as a sufficient mathematical preparation for university physics. As a consequence, a year's work in university algebra and trigonometry at least is demanded. Though many, if not most pupils at high schools and academies study German or French or even both, yet the knowledge acquired, seldom if ever, enables them to read fluently scientific German and French, both indispensable for the pursuit of the advanced sciences. Sufficient instruction in German and French to acquire a reading knowledge of these languages is therefore a necessity. Whether some advanced English is to be added to these languages is a matter possibly of minor importance. The discussion led by prominent teachers on the subject of English during the past few years, would, on the whole, indicate that the requirement of some advanced English might be very wise. In addition to these language and mathematical requirements, the fundamental sciences, physics, chemistry and biology may be considered as truly preparatory work in a pharmaceutical course.

The studies to be recommended for the first two years of a four years' university course of pharmacy would therefore be:

I. Mathematics, four-fifths; German, four-fifths; chemistry, five-fifths; English, two-fifths.

II. Physics, four-fifths; French, four-fifths; biology, five-fifths; English, two-fifths. Fifteen-fifths or three full studies may be considered as the minimum requirement; good students being allowed to elect more work within their capacity.

By a one-fifth is meant a study requiring either one hour lecture or recitation and about two hours home study, or two hours laboratory work with about an hour home study. The courses in the sciences are naturally to be largely laboratory studies.

Upon such a foundation the student can safely build his pharmaceutical superstructure. General chemistry is followed by pharmaceutical chemistry, general botany by pharmaceutical botany, general physics by pharmaceutical technique. These somewhat specialized pharmaceutical studies can then be followed by pharmacognosy, practical pharmacy and thesis. It will largely depend upon the calibre of the student and upon the amount of work required in these studies whether courses in physiology, pharmacology and toxicology; bacteriology, general and pathogenic; sanitation and hygiene; special food and drug analysis; pharmaceutical legislation and jurisprudence, etc., can be required or are to be

offered as elective undergraduate or better even as graduate studies.

The required studies of the third and fourth year therefore will be:

III. Pharmaceutical technique, pharmaceutical chemistry, pharmaceutical botany.

IV. Practical pharmacy, pharmacognosy, thesis, electives and graduate studies.

This course is not recommended as being the ideal course in the mind of the writer. Our system, or rather lack of system, of education in this country, which applies particularly to the preparation of all truly advanced work in sciences, arts and letters, does not at present admit of what the writer would consider an ideal course. It is simply submitted for consideration because it was the first course of its kind offered to pharmaceutical students, and because for three years it has not proven impractical. Three years are too short a time to prove or disprove the value of a course, but the mere fact that several universities have recently offered similar courses seems to indicate that it is not considered by others as wholly unwise or impractical.

What is meant by pharmaceutical chemistry, pharmaceutical botany, etc., may be somewhat a matter of conjecture. What the writer understands by these terms is explained in the catalogue of the University of Wisconsin. Opinions may justly differ as to the details of these courses. It is for the principle that the writer desires to make an earnest plea: a thorough, general foundation, the general to be followed by the more specific, the most technical studies last. Last but not least may well be applied to practical pharmacy and pharmacognosy. Two years thorough work in general and pharmaceutical chemistry is not too much for a genuine appreciation of the text of United States Pharmacopoeia chemicals, when 99 per cent. of our pharmacists, including many graduates and licentiates, cannot read the pharmacopoeial text intelligently. To be able to read the pharmacopoeial text and read it intelligently, certainly must be a fundamental requirement for the study of practical pharmacy.

Any one who has only a faint knowledge of the complexity of plant chemistry or how difficult the microscopic study of contorted or torn tissues of vegetable drugs is, will certainly agree that two years preparation in chemistry and botany, general and pharmaceutical, is by no means too long a preparation for a scientific study of pharmacognosy.

The writer is greatly tempted to make an earnest plea for the cultivation of the cultural phases of practical pharmacy and phar-

macognosy as opposed to the more apparent technical phases of these departments of pharmaceutical study. To merely mention that these studies possess features of greatest general interest and of cultural value of no small degree as chapters of the history of civilization (culturgeschichte) must suffice at the present time. That such a course is not intended to make practical pharmacists any more than any university course is to make immediately practical men, also scarcely requires emphasis. *University courses are to endow men and women with a great capacity for becoming efficient in their calling after they really enter into the same in the every day battle of life.*

Furthermore such a course is to prepare the general practitioner in pharmacy, and not the pharmaceutical specialist, who, in order to prepare himself thoroughly for his special field, should pursue graduate studies along the line in which he desires to specialize. This also can be but mentioned without further comment in this paper. Neither is it to be expected that all shorter courses will be dropped at once. To regulate them, however, does not lie in the interest of the American Pharmaceutical Association. It will be in the interest of each and every university or college to outgrow the short courses as soon as possible after a long course is once adopted.

One important question must by this time have arisen in the mind of reader or hearer. What is to become of our old colleges of pharmacy? They are largely dependent upon the number of students for their support. To make such demands as outlined above, would decimate the ranks of their students and make them unfit to carry the work they are now doing, not to mention the instruction in mathematics, the modern languages, and the general sciences. Are these historical monuments of American pharmaceutical education to be destroyed because their courses have been weighed in the balance and found wanting? The alumni of these institutions would raise a cry of God forbid! throughout the entire length and breadth of this land, and justly so. Ruins acquire a romantic charm after centuries, but those who make them are none the better for their work of destruction.

If these institutions are so anxious to serve the cause of pharmacy as they claim to be, let them seek those conditions and surroundings which will enable them to be largely, if not entirely, independent of the number of students.

American pharmacy is overcrowded and the present competition is killing the truly professional remnant left in our profession. If professional pharmacy is once more to become a possibility, the ranks of the American druggist must be well nigh decimated in

the course of time. Such a weeding of the pharmaceutical field can be conducted only on an educational basis. These pharmaceutical institutions which are assisting in rapidly swelling the ranks of what has become a quasi-profession are therefore not serving the best interests of pharmacy. The manner in which this evil can be eradicated has already been indicated by the writer in a paper published in the "Rundschau" (1894 J. 54) of pharmaceutical fellowships. By donating their buildings and their entire working plant to the state, they can ask support from the state for the education of a limited number of pharmaceutical students. By becoming affiliated with state universities, or where these do not exist, with other large educational institutions, not only by name but by becoming an integral part of the same, students of these colleges can obtain without further expense to the institution, all education and training in general sciences and letters which they may demand.

The isolation of professional students is to-day one of the curses of professional education in this country. Contact, daily contact with those whose thoughts run along other channels, is one of the greatest factors in the true education of all students.

The writer wishes to emphasize that he has no desire to be irreverent toward those historic monuments which supplied a crying demand when the large educational institutions of the East failed to recognize their duty toward one important branch of the healing art. That the university of Pennsylvania, Columbia College, and Harvard University, should have permitted the establishment of private colleges of pharmacy within a radius of five miles, was an educational sin for which the entire country suffers up to this day. It is to be hoped that the spirit of the founders of the older colleges of pharmacy may revive at the close of this century. The necessity of pharmaceutical education is no longer questioned. The old narrow spirit which misused the classic mantle as a protection against contamination with what was thought mentally impure, has given way to a broader university spirit, which reckons only with its duty toward mankind. If the forefathers of American pharmaceutical education had to establish isolated colleges to secure pharmaceutical education at all, let their grand-children become imbued with a spirit of a pharmaceutical renaissance; demand the affiliation of the creations of their forefathers with the great centers of learning of our country.

The scattering of the educational forces in this country which shocks the European, is to us a most pitiable sight. In unity there is strength, educationally as well as physically, and where there is a will there is a way. If the American Pharmaceutical Associa-

tion is possessed of a truly national spirit, let it do something that will be nationally great in its results.

REPORT OF EXECUTIVE COMMITTEE.

Mr. President and Gentlemen:—

Your executive committee take great pleasure in reporting that the organization is in better condition financially, and in every other desirable respect, than ever before. There has been a gratifying increase in membership and there is a growing feeling of good fellowship and good will among the pharmacists of the state which argues well for the future of the W. P. A. when it shall include in its membership roll every druggist in this great commonwealth. The good effects of the association are being felt in all sections of the state, and are recognized by those druggists who as yet have not become members. It is evident that it is only the matter of a short time when Wisconsin can boast of the strongest Pharmaceutical Association of any state in the Union.

It is our mournful duty to report the deaths of members of the Association during the past year, of which there are several. They are as follows: Herman Dettloff, Chippewa Falls, joined Association 1880, died November 6th, 1894; Robert Cunradi, Sauk City, joined 1882, died November 14, 1894; M. A. Sawyer, Boscobel, joined Association 1887, died March 5th, 1895; John A. Dadd, Milwaukee, joined Association 1880, died March 2d, 1895. In the matter of legislation considerable has been accomplished and a very satisfactory condition exists.

The druggists of Wisconsin are to be congratulated that our state board has matters relating to their business so well in hand and is acting with such promptitude and efficiency. Especially is this true in its effort to rid the state of its grocery and dry goods druggists. The Association should lend its support to the board in every consistent way.

We would also recommend that more attention be paid to the northern part of the state by this Association. There are good men there who would be glad to embrace an opportunity to become members were they even slightly encouraged. Some of these northern pharmacists imagine that they are not wanted because the W. P. A. has paid them but little attention. We would suggest that at least one meeting be held in some city accessible to the druggists of the northern portion of the state and, if necessary, send out some workers to get them interested. They are certain to become, as a rule active and desirable members.

And we recommend that the following names be dropped from the roll, they having left the state, retired from business, or back on dues: (See list of membership.)

PHARMACY IN WISCONSIN.

FROM THE SECRETARY'S NOTE BOOK.



Believing that a record should be kept of the progress of pharmacy in our state, we have collected such items as will make a condensed history. Fifty-nine years ago the first drug sign was hung out in the city of Milwaukee on what is now East Water street, the store being owned by L. T. Higby & Co. In 1837, Dr. King opened a drug store in Green Bay, which store is still in existence. Messrs. Holden & Kemp opened the Empire Drug Store, in Janesville, in the year 1847, and this store is still in operation. Between the years 1836 and 1878 but few items could be gathered. In 1878 there were some six hundred drug stores in the state; this including many general stores, who having a small stock of drugs, were rated as drug stores. In the fall of 1878, the Janesville druggists, seven in number, organized a local society, holding meetings once a month. No regular officers were elected, the meetings being informal. Druggists from surrounding towns became interested and on June 4th, 1879,

THE ROCK COUNTY PHARMACEUTICAL SOCIETY

was organized, almost every druggist in the county becoming a member. The following officers were elected:

Dr. C. M. Smith, Evansville, president; E. B. Heimstreet, Janesville, secretary; D. C. Griswold, Evansville, treasurer. Meetings were held at different towns in Rock county until the association was merged into the state association.

C. M. Smith, M. D., president of the Rock County Pharmaceutical Society was a physician as well as druggist, and owned and conducted a large drug store at Evansville, and took a great interest in all matters pertaining to pharmacy, has now retired from the drug business.



C. M. SMITH.

Pharmacy in Milwaukee.

In 1876 the first legislation in regard to the competency of a pharmacist, or regulating pharmacy, was put in force. It was brought about by some antagonism among the profession in that city, resulting in the formulating by the city council of a bill which was passed by the legislature and approved March 10, 1876, and went into effect the following August, its provisions applying only to the city of Milwaukee. Six of their members were selected by the pharmacists of the city, from which the Mayor appointed three who were to constitute the Pharmacy Board of Milwaukee. The members of the first board were F. Ladwig, Wm. Ritmier and John A. Dadd. They had the same power over the city as the state board now has in the state. This board and law remained in force until 1882, when the state law was passed. The certificates of the Milwaukee board being accepted by the state board.

THE MILWAUKEE PHARMACEUTICAL ASSOCIATION

was considered a necessity, and consequently organized August 1,



C. WIDULE.

1881. The druggists of Milwaukee had held meetings for several years previous, to discuss questions of interest and make selections of candidates for members on the board of pharmacy, which was formerly a city organization. Mr. C. Annecke, a prominent Milwaukee druggist, made the first proposition to form a city association, and twenty-one druggists responded to the call at the meeting. The object was to organize a society to advance the interests of the druggists, bringing its members in close fellowship and to promote

sociability. The first officers were H. Fess, president; H. C. Schranck, treasurer; O. A. Thiele, secretary. September, 1881, O. A. Thiele resigned and H. C. Schranck was appointed secretary, acting as treasurer at the same time.

In October, 1881, prices of patents were fixed. Nov. 1881, constitution was amended so that every druggist in the city, in good

standing, could become a member by paying yearly dues of \$1.00. During the following years the association did much good to advance the study of pharmacy and maintain regular prices; bringing druggists together socially, fighting the liquor law, alcohol taxation, entertaining the American Pharmaceutical Association, telephone fight, and other things interesting to the city druggists in their every day business. The present officers are C. Widule, president; H. O. Frank secretary and treasurer. This association has indeed shown itself a necessity as well as being a success to its members. Prices have been sustained as no other city of the size of Milwaukee can show. The members are unanimous in action; harmonious in feeling, and shake hands when they meet one another.

THE FOND DU LAC PHARMACEUTICAL ASSOCIATION was organized Nov. 10th, 1881, with the following officers: J. C. Huber, president; W. F. Kent, Secretary; E. S. Curran, treasurer. The aims and projects of this society were to encourage proper relations between pharmacists, physicians, and the people at large; to promote the public welfare, and tend to mutual strength and advantage, also to improve the science and art of pharmacy by diffusing knowledge among its members; fostering pharmaceutical literature, stimulating discovery and invention, and encourage home production and manufacture in the several departments of the drug business. Also to regulate the system of apprenticeship and employment, so as to prevent, as far as practicable, the evils fol-



J. C. HUBER.

lowing deficient training in the responsible duties of preparing and dispensing and selling medicines; to uphold a standard of authority in the education, theory and practice of pharmacy; to create and maintain the standard of professional honesty, equal to the amount of professional knowledge, with the view of the highest good and the greatest protection of the public. This organization has continued in active operation to the present time, and by the

settling of petty trade differences, has saved to those belonging to it, many hundreds of dollars of legitimate profit which otherwise might have been lost in useless, foolish and undignified competition. The State Pharmaceutical Association has met in that city twice during the life of this association, and through the efforts and co-operation of members of the local association have been able to make the stay of the brethren throughout the state, both pleasant and profitable. The present officers of the association are J. C. Huber, President; A. Pfeil, Secretary; F. M. Givens, Treasurer.

THE STATE ASSOCIATION.

On a pleasant day in July, 1880, some eighty druggists gathered



JOHN A. DADD.

at the Capitol building, at Madison, in response to a call sent out to the druggists of the state by the Rock county society. Mr. F. S. Fenton, at that time a leading druggist of Beloit, called the druggists to order, briefly stating the objects of the meeting. Committees were appointed, and the Wisconsin Pharmaceutical Association was launched into existence, with John A. Dadd, of Milwaukee, president; A. J. Roberts, of Janesville, treasurer and E. B. Heimstreet,

secretary. Every druggist present signed the constitution and by-laws presented by the committee. The Association was duly incorporated January 25th, 1881. From that date to the present time, the history of the association has been a prosperous one. Meetings have been held every year, at Milwaukee, La Crosse, Janesville, Madison, Fond du Lac, Palmyra, Portage, Appleton, Oshkosh, Racine and Sheboygan. The following have been honored by holding the office of president of the association: John A. Dadd, Milwaukee; Geo. Howard, La Crosse; F. M. Givens, Fond du Lac; R. Sauerhering, Mayville; Henry Rollman, Chilton; Frederick Robinson, Kenosha; Edwin Sumner, Madison; F. F. Prentice, Janesville; R. D. Pulford, Mineral Point; W. M. Edwards, Portage; Christian Widule, Milwaukee; E. D. Pardee, Wausau; A. H. Hollister, Madison; F. W. Thieman, Sheboygan. A. J. Roberts held

the funds for two years as treasurer; and W. P. Clarke, of Milton, has been its treasurer from 1882 until the present time. E. B. Heimstreet, of Janesville, has kept the secretary's books from its organization in 1880.

In 1881, Messrs. E. Sumner, Madison; J. C. Huber, Fond du Lac; C. Widule and John A. Dadd, Milwaukee; F. S. Fenton, Beloit; Fred Robinson, Kenosha; and E. B. Heimstreet, Janesville; were appointed a committee to draft a pharmacy law for Wisconsin and to look after its interest in the legislature. This was done, and in January the bill became a law almost without opposition. The first Board of Pharmacy was appointed in April, 1882, by Gov. Rusk as follows: T. H. Spence, LaCrosse; A. H. Hollister, Madison; F. Robinson, Kenosha; A. Conrath, Milwaukee; E. B. Heimstreet, Janesville.

The next effort of the association was the establishment of a Department of Pharmacy at the State University, and in February, 1882, letters were sent to all druggists in the state to use their influence for such a department. A bill was introduced and was passed establishing the Department, and in September of the same year the Pharmacy Department was opened, with Prof. F. B. Power, from the Philadelphia College of Pharmacy, in charge.



F. W. THIEMAN.

The association has grown from eighty members to a membership of over four hundred; it has money in its treasury; and has done splendid work in educating the younger druggists. For the first few years the meetings were given up to the reading of scientific papers and discussions, but for a number of years past, recognizing the fact that the average druggist wants a play spell, games have been introduced, and now the Wisconsin association has the reputation all over the United States of having the best attended and most enjoyable meetings of any association of the kind.

The present officers of the association are well known throughout the state. F. W. Thieman, president of the association, is a native of Wisconsin, about thirty-five years of age, has been in the drug business as clerk and proprietor, some twenty years, and

commenced business for himself at nineteen years of age. He has a fine pharmacy at Sheboygan and does a large prescription business.



H. G. RUENZEL.

H. G. Ruenzel, of Milwaukee, first vice-president, is thirty-four years old, also a Wisconsin man. After thorough school work, entered the employ of Gustavus Bode, the chemist, and afterward with Messrs. Widule & Conrath. He then took a course in pharmacy at the Wisconsin State University, winning the prize for scholarship offered by the State Pharmaceutical Association. He then engaged in business in Milwaukee, where he is at present, now having an experience of over nineteen years.

The second vice-president, although from the northern part of the state, is well known all over Wisconsin as being one of the most active workers the association has ever had. Joseph Hammel, was born in Canada in 1860, removing to Wisconsin, he received a thorough school education, finishing in Lawrence University, Appleton, Wis., after which he entered the drug business, clerk-



JOSEPH HAMMEL

ing for two years, then taking a two years' course at the Chicago College of Pharmacy, returning to Wisconsin in 1880, being in the drug business since that time. Mr. Hammel has a profitable business at Medford, Wis., where he has an elegant pharmacy.

The office of treasurer has seen but little change since the organization of the society. A. J. Roberts, a popular druggist of Janesville, was elected treasurer in 1880, holding the office two years, when he removed to Minnesota. W. P. Clarke, the present efficient treasurer, was elected in 1882 and has held the

office by a unanimous election every year. Mr. Clarke was born in New York in 1842, removing to Wisconsin in 1856. Graduated from Milton College in 1861, enlisted in the army as private the same year and served until 1865, when he was mustered out as captain. He commenced the drug business in 1873 at Milton, where he now resides and has a prosperous business.

The office of secretary has not been changed since the association was organized. E. B. Heimstreet, who was elected at Madison in 1882, is forty-seven years of age, and was born in New York, where he attended school until 1864.

Was always around a drug store, his father and uncle both being in the drug business for many years. Enlisted and served in the 14 Reg. U. S. I. When the war was over, returned home and attended Albany Medical College, removing to Janesville, Wis., in 1867, where he has been engaged in the drug business until the present time.

D. A. Taylor, of Stevens Point, the local secretary, was born in Ireland in 1860, removing when a child to this country, where he attended school; completing the high school course at Sparta, Wis. Working in a pharmacy out of school hours, and after leaving the high school, paying all his attention to the business until he entered the Wisconsin College of pharmacy, from which he graduated in 1890. He moved to Stevens Point in 1891, and soon after entered in business for himself, where he and his brother are now engaged in the drug business.

The association is in a prosperous condition, and the interest



W. P. CLARKE.



E. B. HEIMSTREET.

**D. A. TAYLOR.**

sion of three days, mapping out work for the ensuing year. The first meeting for examination of candidates was held at Janesville, May 23rd, 1882. Six candidates applied for examination, and but two were successful in passing, they being Mr. E. B. Patton, now a successful business man at Waupun, and Mr. E. W. Griswold, now in charge of a pharmacy at Neenah. From that time to the present, the board has worked harmoniously and with general satisfaction to the druggists of the state. In 1885, 1887 and 1895, the law was amended, very little opposition being made in the legislature. Such men as F. Robinson, of Kenosha, R. D. Pulford, of Mineral Point (both dead), Adam Conrath, of Milwaukee, T. H. Spence, of LaCrosse, Dr. A. H. Hollister, of Madison, John Rosch, of Menasha, by their earnest efforts have made the pharmacy law of Wisconsin what it now is, one of the

has increased every year until most of the progressive pharmacists of Wisconsin are enrolled in its ranks.

Wisconsin Board of Pharmacy.

April 20th, 1882, Messrs. F. Robinson, A. H. Hollister, Adam Conrath, T. H. Spence, and E. B. Heimstreet, met at the Capitol, Madison, being the newly appointed members of the board. T. H. Spence, of La Crosse, was elected president and E. B. Heimstreet, of Janesville, secretary for one year. The board held a ses-

**T. H. SPENCE.**

made the pharmacy law of Wisconsin what it now is, one of the

best in the union. Since 1882, 1955 persons have attended the examinations, 582 receiving their certificates as licentiate; 600 assistants. 775 being rejected. 193 have been registered by interchange of certificates from other states. There are 1249 first grade, and 302 assistant pharmacists in Wisconsin.

Certificates of registration are exchanged with most of the states and quite a number have taken advantage of it. The present members of the board are, President, Henry C. Schranck, of Milwaukee, graduate of New York College of Pharmacy. Chas. R. Bechmann, Fountain City, graduate of Chicago College of Pharmacy. Herman O. Frank, Milwaukee,



H. C. SCHRANCK.

graduate pharmacy school of Ann Arbor, Mich. A. F. Menges, Madison, graduate of the pharmacy department of State University, Wisconsin, and E. B. Heimstreet, Janesville, Secretary.

History of the School of Pharmacy of the University of Wisconsin.

The Wisconsin State Pharmaceutical Association two years after its organization secured the enactment of a law designed to restrict the practice of pharmacy to those possessing the necessary qualifications. In order to adequately meet these legal requirements, the same association requested the establishment of a chair of pharmacy and materia medica in connection with the University of Wisconsin. The legislature of 1883 appropriated the necessary funds and placed this trust into the hands of the Board of Regents of the State University.

Dr. F. B. Power, who had spent four years at the University of Straesburg, particularly in the laboratories of the late Prof. Flückiger, and who at the time occupied the position of Professor

of Analytical Chemistry at the Philadelphia College of Pharmacy, was elected to fill the chair of Pharmacy and Materia Medica. The University of Wisconsin was to be congratulated in securing so excellent a scholar and teacher.



DR. F. B. POWER.

When Dr. Power arrived at Madison in August, 1883, no provision whatever had been made to house the new department, and what was even more discouraging, no person in authority could be found in the city. Finally Dr. Power secured quarters in a small section on the first floor of South Hall. That portion of the building which now serves as the bacteriological laboratory and which was then cut up into five small rooms, served as office, private laboratory, students' laboratory, storage room and balance room of the newly established department. The botanical lecture room of Prof. Trelease, being provided with neither

gas nor water, served also as a lecture room for pharmacy.

These rooms however were soon outgrown. The entire fourth floor of South Hall soon furnished more commodious quarters and better facilities for work. In 1889 the department moved to North Hall, occupying the third and fourth floors of that building. At first the equipment of the department was insufficient to fill its new quarters. At present more than half the building is occupied by pharmaceutical departments, the department of practical pharmacy being compelled to seek quarters on the first floor and in the basement. Besides, pharmaceutical botany is still being taught in Science Hall. It should be stated that the instruction of pharmaceutical students is not confined to North Hall, the oldest building on the campus, whose walls and window sills tell many an interesting story of the good old dormitory days.

College buildings, however interesting they may be, are not the most important part of an institution. If Dr. Power had been satisfied to arrange an evening course such as existed almost uni-

variety in this country, the beautiful campus on the shores of Lake Mendota would not have contributed more than an iota to make the school better than the large number already in existence. Dr. Power and his colleagues in the college of science and letters, and the courses of study similar to that of the sister University at Ann Arbor, however, gave tone to this foster child of the State pharmaceutical association.

The first course offered was one of twice six and one-half months and comprised the following studies: Practical pharmacy and practical chemistry; general chemistry, inorganic and organic; chemical physics; materia medica and pharmacognosy; and structural, systematic and physiological botany.

The corps of instructors comprised the following names:

John Bascome, D. D., L. L. D., president of the university.

Frederick B. Power, Ph. G. Ph. D., professor of pharmacy and materia medica.

William W. Daniells, M. S., professor of chemistry.

John E. Davies, A. M., M. D., professor of physics.

Charles R. Van Hise, M. S., professor of analytical chemistry.

William Trelease, B. S., professor of botany.

During the first seven years of the history of the school Dr. Power only twice had graduate assistants. In 1890, Dr. Kremers, who had assisted in the pharmaceutical laboratory during the collegiate year 1886-7, and who had just returned from Germany, where he had studied at the universities of Bonn and Göttingen, was appointed instructor, and was given charge of the pharmaceutical laboratory. Relieved of the laboratory instruction Dr. Power was enabled to give more time to the revision of the United States Pharmacopoeia. It may interest Wisconsin druggists, and should be a matter of pride to them, that more articles of the United States Pharmacopoeia were revised by Dr. Power than by any other member of the committee of revision. Being a member of several of the sub-committees, more than three-fourths of the articles of the present Pharmacopoeia were in part, or entirely revised by him. At the same time pharmaceutical instruction, though not obligatory, was extended through the spring term.

In the spring of 1892, Dr. Power resigned. He was succeeded by Dr. Kremers. The number of students had risen to sixty-two. The laboratory facilities, although greatly improved, the instructional force were insufficient to accommodate and take care of such a number. It should be remembered that unlike most colleges, the laboratory classes were not divided into sections. but the pharmaceutical laboratory was open to all students from morning to night. The board of regents upon recommendation of

the faculty, therefore increased the requirements for admission, and lengthened the course so as to extend it through the entire



DR. KREMERS.

academic year for three terms. At the same time a four years' course of similar educational value to the general science course was offered. During the past months three other state universities have offered similar courses. The extension of the time to two full years enabled a somewhat more satisfactory arrangement of the studies. The studies of the first year were chiefly general and of a preparatory nature. The more technical studies were reserved for the second year. In place of pharmacy and materia medica

pharmaceutical chemistry, pharmaceutical botany, etc., were substituted, thus effecting a somewhat more scientific division of labor. Mr. S. S. Cheney was elected instructor in pharmaceutical botany. Some instruction in pharmaceutical technique and in pharmacognosy was also given. In 1893 a laboratory and cabinet for pharmacognosy were equipped; in 1894 laboratories for practical pharmacy and pharmaceutical technique; so that at present, instruction is being given in five distinctively pharmaceutical departments, besides the instruction given in general chemistry, botany, physiology, bacteriology, etc.

It can now be said without exaggeration that although, or rather because, the number of pharmaceutical students is small, no school or college of pharmacy in this country offers equal facilities for a thorough course in pharmacy.

One of the principal advantages however, which is not offered by any of the older colleges of pharmacy and not even by all schools of pharmacy, some of which are connected with distant universities only by name, is the daily contact with 1500 students in other departments of study, this is in itself an education.

Following the example of Ann Arbor, the school a year ago dropped the requirement of practical experience for graduation. During the past year a surprising number of schools and colleges

of pharmacy have followed this example.

In the matter of pharmaceutical fellowships, the Wisconsin school has also taken the lead. In 1893-94 one of its graduates for the first time held a general University fellowship. In 1894-95 a number of druggists, friends of the school, made possible the election of a pharmaceutical fellow. During the present year there are three fellows in the School of Pharmacy. The degree of Ph. M. and M. S. in pharmacy have each been taken for the first time in recent years, for actual work by graduates of the school. Nothing is more encouraging than the interest taken by students in truly advanced work. Not only have the original contributions from the pen of Dr. Power and other members of the pharmaceutical faculty received favorable comment, but the work of the students has attracted attention and even created surprise.

In recent years the U. W. alumni have begun to take a greater interest in public and professional matters. Many have joined the state association, and the annual meetings at Racine and Sheboygan have witnessed a fair number in attendance. If the Wisconsin Pharmaceutical Association wants every druggist of this state to join, it certainly wants every alumnus of its own offspring, the Wisconsin School of Pharmacy. The state has been liberal in giving them a professional education. It expects them to return their indebtedness with compound interest, not in money, but in rendering good service to the people of this state. No small part of this indebtedness can be paid by becoming active members of the State Pharmaceutical Association, and by honestly and conscientiously performing their duties as members of the association, the parent of their alma mater.

THE PHARMACY LAW

provides for a board of five examiners recommended by the Pharmaceutical association, but appointed by the governor. All examinations to be at regular stated meetings. Applicants for assistant certificates must be eighteen years of age and have two years practical experience in a drug store. For licentiate, must be twenty-one years of age and had five years practical experience. Graduates of any recognized college of pharmacy are allowed two years in school and two years practical experience. Examination fee, five dollars, three of which are returned if applicant fails. Licentiates of other states will be recognized on filing blanks showing five years practical experience and a standing of eighty per cent in examination; certificate to come from secretary of board. Renewals for first grade certificates, one dollar. Assistant, fifty cents. Every drug store or pharmacy must be under the supervision of a full registered pharmacist, but can be left with an assistant for a

short time only. Apprentice can put up prescription or sell drugs under the personal supervision of a registered pharmacist, but cannot make sales or put up prescriptions in the absence of the registered pharmacist. Physicians diplomas are not recognized as certificates of registration. Sales of poisons and liquors must be registered.

SUPERIOR PHARMACEUTICAL ASSOCIATION.

It seems but a short time ago that a notice was sent to the secretary that a drug store was



R. SIMMONS.

to be started at Superior. Not being familiar with the place, the question was put to a traveling man, "what is Superior?" The reply, "well it is a city on paper, and nothing but stumps." This was in the spring of 1886, and the party was Mr. R. Simmons, now a leading pharmacist of that city and president of the local association. The city has grown until there are now sixteen first-class pharmacies, all doing a good business. The pharmaceutical association is doing a good work, and its

officers are, president, R. Simmons; vice-president, C. S. Slocum, secretary and treasurer, C. W. Aust, and every druggist in the city is a member of the association. The objects are the same as the other local associations, and the meetings are devoted to sociability as well as business, and its work will have quite an influence on druggists in the northern part of the state.

ON THE MEDICINAL PLANTS OF IOWA COUNTY, WISCONSIN.—A PRELIMINARY PAPER ON THE MEDICINAL PLANTS OF THE STATE OF WISCONSIN.

BY ALFRED VIVIAN.

It is with considerable misgiving that I undertake this paper, for I feel that the list of medicinal plants of Iowa county is so far from complete that I hesitate to bring it before the public. At the earnest solicitation of a number of my friends, however, I here present the list with an apology for its incompleteness, hoping in the near future to be able to add materially to it and perhaps to extend its limits so as to take in the entire state.

Iowa county is situated in the southwestern part of the state, in the heart of the lead region and in the so-called "driftless area" of Wisconsin. It presents the hilly and broken surface that is usually found in the "driftless area," and varies in altitude from something over 1100 feet to a little less than 150 feet above the level of Lake Michigan. Along the northern boundary runs the Wisconsin river, and through the southern part flows several branches of the Pecatonica river. The soil is extremely fertile and quite variable in character. In the higher parts it consists either of a light loam or of a heavy clay, according to the situation; along the northern edge the soil is sandy with occasional marshy spots.

With a soil so diversified in character it is not surprising to find so extensive a flora as exists in the county. And this diversity of soil and elevation makes it the more difficult to obtain anything like a complete list of plants, for every nook and corner must be examined, to be sure that nothing has been missed.

In the following list those plants which are official are marked with an asterisk. In determining what plants are medicinal, I have relied for the most part on "Maish's Organic Materia Medica," though I have included several plants not mentioned in that work, but which have been noticed in various drug journals.

EQUISETACEÆ.

Equisetum Arvense, L. Horsetail, Scouring rush. Throughout the county in sandy and gravelly soil.

FILICES.

Polypodium vulgare, L. Palypody. Not rare throughout the county.

Adiantum pedatum, L. Maiden hair. Common.

GYMNOSPERMÆ.

Thuja occidentalis, Tourn. Arbor Vitæ. Cultivated for ornament.

Juniperus Virginiana, L. Red cedar. Rare.

GRAMINÆ.

**Agropyrum repens*, Beauv. Couch grass, Triticum. In large quantities. A very troublesome weed.

ARACEÆ.

Arisaema triphyllum, Torr. Indian turnip. Rather common throughout.

Symplocarpus foetidus, Salisb. Skunk cabbage. In wet places, common.

Acorus Calamus, L. Sweet flag. In marshes along the Wisconsin river.

ALISMACEÆ.

Alisma Plantago, L. Water plantain. Along the Wisconsin river.

LILIACEÆ.

Smilacina racemosa, Desf. False Solomon's seal. Common in open woods.

Allium sativum, L. Garlic. In gardens.

Polygonatum biflorum, L. Solomon's seal. Rich woods. Not common.

Trillium erectum, L. Wakerobin. In rich woods throughout the county.

Asparagus officinalis. Common asparagus. Cultivated.

**Convallaria majalis*. Lily of the valley. In gardens.

IRIDACEÆ.

**Iris versicolor*, L. Blue flag. Along northern edge of county. Not abundant.

DICSCORACEÆ.

Dioscorea villosa, Plumier. Wild yam. In thickets throughout the county.

ORCHIDACEÆ.

**Cypripedium pubescens*, Willd. Lady's slipper. Rich woodlands. Becoming rare.

JUGLANDACEÆ.

**Juglans cinerea*, L. Butternut.

“ *nigra*, L. Walnut. In small quantities throughout.

BETULACEÆ.

Betula papyrifolia, Marshall. Paper birch. Rocky hillsides. Common.

FAGACEÆ.

**Quercus alba*, L. White oak. Common.

ULMACEÆ.

**Ulmus fulva*, Michx. Slippery elm. More or less common throughout.

URTICACEÆ.

**Humulus Lupulus*, L. Hops. Escaped from cultivation.

Cannabis sativa, L. Indian hemp. Along roadsides and about Dwellings.

ARISTOLOCHIACEÆ.

Asarum canadense, L. Wild ginger. In low woods. Common.

POLYGONACEÆ.

**Rumex crispus*, L. Yellow dock. A weed in cultivated lands.

PLANTAGINACEÆ.

Plantago major, L. Common plantain. A troublesome weed.

CARYOPHYLLACEÆ.

Saponaria officinalis, L. Soapwort. Bouncing Bet. Near dwellings in a few places. Escaped from cultivation.

NYMPHAEACEÆ.

Nymphaea odorata, L. White water-lily. Along Wisconsin river. Rare.

Nuphar advena, AIT. Yellow water-lily. Common in northern part of the county.

RANUNCULACEÆ.

Clematis Virginiana, L. Virgins bower. Not rare throughout the county.

**Anemone patens*, L. var. *Nuttalliana*, gray. Pasque flower. Rocky points. Not rare.

Anemone nemorosa, L. Wood anemone. Open woods. Common.

Hepatica acutiloba, DC. Liverleaf. Wooded north hillsides, middle and south part of county.

Ranunculus bulbosus. Bulbous crowfoot. Near Mineral Point. Rare.

Ranunculus repens, L. Creeping crowfoot. Along streams throughout county.

**Hydrastis Canadensis*, L. Golden Seal. Woods in town of Wyoming. Not common.

Coptis trifolia. Salisb. Gold thread.

BERBERIDACEÆ.

**Berberis vulgaris*, L. Barberry. Escaped from cultivation. Very rare.

**Caulophyllum thalictroides*, Michx. Blue cohosh. Common.

**Podophyllum peltatum*, L. Mayapple. Mandrake. In large quantities.

PAPAVERACEÆ.

- **Sanguinaria Canadensis*, Dill. Bloodroot. Found throughout the county.

CRUCIFERÆ.

- Dentaria laciniata*, Muhl. Toothwort. More or less common throughout.
- Nasturtium officinale*, R. Br. Water cress. Common in all springs and spring branches.
- Nasturtium Armoracia*, Fries. Horse-radish. Escaped from cultivation. Common.
- Brassica sinapistrum*, Boiss. Charlock. Abundant. Commonly called black mustard.
- Capsella Bursa-Pastoris*, Moench. Shepherd's purse. Everywhere as a weed.

FUMERIACEÆ.

- Dicentra Canadensis*, Dc. Squirrel corn. Found in one place, near Mineral Point.

ROSACEÆ.

- **Prunus Virginiana*, L. Choke cherry.
- **Prunus Serotina*, L. Wild black cherry. Occasionally met with in all rich woods.
- **Rubus villosus*, Ait. Common blackberry. Common everywhere.
- **Rubus Canadensis*, L. Dewberry. With *R. villosus*. Less common.
- Potentilla Canadensis*, L. Cinque-foil. Five-finger. Common in dry soil throughout.
- Pyrus Americana*, Dc. American mountain ash. Introduced as an ornamental tree.

LEGUMINOSÆ.

- Baptisia tinctoria*, R. Br. Wild Indigo. On dry ground, rather common.
- Trifolium pratense*, L. Red clover. Largely cultivated. Escaped to roadsides and waste places.
- Melilotus alba*, Lam. White melilot. Very common along roadsides.
- Robinia Pseudacacia*, L. Common locust tree. Common in cultivation as an ornamental tree.

ONAGRACEÆ.

- Epilobium angustifolium*, L. Willow herb. Near Mineral Point. Rare.
- Oenothera biennis*, L. Evening primrose. Common.

GERANIACEÆ.

- **Geranium maculatum*, L. Common cranes-bill. Common in woods and thickets.

LINACEÆ.

- **Linum usitatissimum*, L. Common flax. Cultivated. Along roadsides.

RUTACEÆ.

- **Xanthoxylum Americanum*, Mill. Prickly ash. Quite common in northern part of the county.

POLYGALACEÆ.

- **Polygala Senega*, L. Seneca snakeroot. Dry hillsides, northern part of county.

MALVACEÆ.

- Malva rotundifolia*, L. Common mallow. Common along roadsides, in waste places and cultivated ground.

VIOLACEÆ.

- Viola tricolor*, L. Pansy. Escaped from cultivation in a few places.

ANACARDIACEÆ.

- **Rhus glabra*, L. Sumach. Common.
**Rhus toxicodendron*, L. Poison ivy. Poison oak. Not uncommon in thickets.

VITACEÆ.

- Vitis riparia*, Michx. Grape. Common throughout.

RHAMNACEÆ.

- Ceanothus Americanus*, L. Redroot. New Jersey Tea. More or less common in high land.

TILIACEÆ.

- Tilia Americana*, L. Basswood. Quite common along streams.

ARALIACEÆ.

- Aralia racemosa*, L. Spikenard. In rich woods. Widely distributed.
Aralia nudicaulis, L. Wild sarsaparilla. Rich woodlands.
Aralia quinquefolia, Decsne and Planch. Ginseng. Occasionally in rich woods.

UMBELLIFERÆ.

- Cicuta maculata*, L. Spotted cowbane. Along Wisconsin river.
Eryngium yuccae folium, Michx. Rattlesnake plantain. On dry hills in northern part of the county.
Petroselinum sativum. Parsley. In gardens.

ERICACEÆ.

- **Chimaphila umbellata*, Nutt. Pipsissewa. In woods in town of Wyoming.
**Gaultheria procumbens*, L. Wintergreen. On a few hillsides Rare.

OLEACEÆ.

- Fraxinus Americanus*, L. White ash. A common tree.

APOCYNACEÆ.

**Apocynum cannabinum*, L. Canadian hemp. Moist places in northern part of the county.

Apocynum androsaemifolium, L. Dogbane. Border of thickets. Common.

ASCLEPIADACEÆ.

**Asclepias tuberosa*, L. Plurisy root. Dry open woods in northern part.

Asclepias incarnata, L. Swamp milkweed. Low lands along the rivers.

Asclepias Cornuti, Decaisne. Common milkweed. Everywhere.

LABIATÆ.

Teucrium Canadense, L. American germander. Along Wisconsin river.

**Mentha viridis*, L. Spearmint. Around Mineral Point. Escaped.

**Mentha piperita*, L. Peppermint. Terry's spring near Mineral Point.

Pycnanthemum lanceolatum, Pursh. Mountain mint. Basil. Near Wisconsin river.

Hedeoma pulegoides, Pers. American penny-royal. In dry soil. Not abundant.

Monarda fistulosa, L. Wild bergamot. Abundant everywhere.

Monarda punctata, L. Horsemint. In large quantities on the sandy prairies of the Wisconsin river.

Nepeta Cateria, L. Catnip. Along roadsides. Around dwellings. Abundant.

Nepeta Glechoma, L. Gill-over-the-ground. Along fences and sidewalks. Common.

**Scutellaria lateriflora*, L. Mad dog skullcap. Wet shady places along Wisconsin river.

Brunella vulgaris, L. Self-heal. Heal-all. Very common.

Leonurus Cardiaca, L. Motherwort. In rich soil. Common.

SOLANACEÆ.

**Solanum Dulcamara*, L. Bittersweet. Widely distributed. Not abundant.

Solanum nigrum, L. Common in fields.

**Datura Stramonium*, L. Thorn-apple. Jamestown weed. Waste places in southern part of the county.

SCROPHULARIACEÆ.

Verbascum Thapsus, L. Common mullein. Common in fields and pastures.

Linaria vulgaris, Mill. Toad-flax. Common along roadsides.

Veronica Virginica, L. Culver's root. Rich woods, everywhere.

**Digitalis purpurea*, L. Foxglove. In gardens.

RUBIACEÆ.

Cephalanthus occidentalis, L. Button bush. Low wet woods along the Wisconsin river.

Galium aparine, L. Cleavers. Common.

CAPRIFOLIACEÆ.

**Sambucus Canadensis*, L. Common elder. Everywhere. Common.

**Viburnum prunifolium*, L. Black haw. Along streams. Common.

Triostium Perfoliatum, L. Horse gentian. Rich woods. Widely distributed.

CAMPANULACEÆ.

**Lobelia inflata*, L. Lobelia. Indian tobacco. Northern part. Not common.

COMPOSITÆ.

**Eupatorium perfoliatum*, L. Thoroughwort. Boneset. Along streams. Abundant.

Ambrosia artemisiæfolia, L. Ragweed. Our commonest weed.

Helianthus annuus, L. Sunflower. Persisting occasionally after cultivation.

Anthemis Cotula, Dc. Mayweed. Very common along roadrides and in waste places.

Achillea Millefolium, L. Yarrow. Common.

**Tanacetum vulgare*, L. Tansy. Persisting after cultivation.

**Arctium Lappa*, L. Burdock. A common weed.

**Taraxacum officinale*, Weber. Dandelion. Everywhere in great abundance.

Lactuca Scariola, L. Prickly lettuce. Waste places and cultivated ground in southern part.

Helenium autumnale, L. Sneezeweed. Along Wisconsin river.

ANALYSIS OF WELL WATER.

BY W. J. WENLE.

Herewith is presented an analysis of twelve wells in the village of West Bend. The analysis was made with a view of ascertaining the contents, having a bearing on the sanitary condition of the water. The results indicate that the wells one to five may be considered good water while the balance are more or less doubtful.

Number of well....	1	2	3	4	5	6	7	8	9	10	11	12
Condition	Slightly Turbid.	Clear	Slightly turbid	Clear	Turbid	Clear	Turbid	Clear	Clear	Clear	Clear	Clear
Chlorine	1.06	1.42	1.42	2.13	2.84	4.97	5.68	6.39	9.23	9.23	19.88	21.3
Oxygen-consuming power.....	.046	.066	.023	.073	.113	.133	.106	.066	.046	.023	.120	.173
Nitrogen in ammonium compounds..	.004	.018	.003	None	.002	None	.20	None	None	None	.016	None
Nitrogen by Alkaline permanganate	.008	Trace	None	Trace	None	Trace	.012	None	Trace	None	.012	.006
Nitrogen as Nitrates	None	None	None	Trace	None	1.2	1.2	.8	.6	1.5	1.2	4.0
Nitrogen as Nitrites	None	None	None	Trace	None	None	Trace	None	Trace	Trace	Trace	Trace

The Ladies' Auxiliary.

The third annual meeting was a continuance of the success which has attended this branch of the association, the ladies meeting and forming new acquaintances, and old friends pleasantly occupying the hours that the members of the W. P. A. are engaged in business. The first session was held Tuesday afternoon, being an informal one. Wednesday morning the visiting ladies were treated to a carriage ride around the city.

SECOND SESSION, WEDNESDAY AFTERNOON.

The president, Mrs. Lena Rollman, read her address as follows:

To the Woman's Auxiliary of the Wisconsin Pharmaceutical Association:

I again greet you all at this, our annual meeting, and am pleased to see so many in attendance.

Since our organization in '92, our membership has yearly increased. Much has been accomplished, but there is still a large and growing field to cultivate, therefore I hope all will extend a helping hand in this our undertaking and we will surely make a success of it.

Our secretary, Miss Abbott, extended to all members of the Woman's Auxiliary, a most cordial invitation to our meeting, and as our meetings have not been so well attended in the past, I hope the future will make up, as these meetings afford excellent opportunities to form many valuable acquaintances and to enjoy profitable as well as a pleasant outing, therefore I hope that all ladies that are not as yet members of the Woman's Auxiliary will join us at this meeting, and thereby show the interest they are taking in our undertaking.

In conclusion I wish to express my appreciation and tender you all my sincere thanks for the honor you have bestowed upon me by electing me to the presidency of the Woman's Auxiliary, and I hope you will kindly bear, and forbear with my inexperience as a presiding officer.

MRS. LENA ROLLMAN, President.

The following paper was read by title and referred for publication in the minutes.

ARE WOMEN SUCCESSFUL IN BUSINESS?

Business, according to Webster, is "that which busies, or occupies the time, attention or labor of one as his principal concern,

whether for a longer or shorter time; any particular occupation or employment for a livelihood or gain."

Truly a wide range for thinking men and women, and with all this latitude how can one be other than business man or woman? By virtue of doing the roughest work that it has been necessary to do in the world since the mandate went forth in Eden, that "man should earn his bread by the sweat of his brow," the masculine half of humanity has been given the credit of performing the greatest part of the work of the world. Men fight the wars, make the laws, and write the histories of the times in which they live, and these histories are mainly filled with the records of their own actions. But in the meantime there goes on an uninterrupted and unrecorded procession of events in which the women of the world bear their part, that can only be guessed at by reading between the lines of these historic pages. These warriors, lawyers, statesmen and historians are all born of women who not only undergo all the inevitable risks and sufferings of maternity but make a business by toiling early and late, of shaping the boy into the man. The courage and patient endurance required in giving birth to children, and in patiently moulding the plastic body and mind to the uses of living, have never been excelled by any of the vaunted undertakings of men. In this business women are pre-eminently a success and have a monopoly.

In many countries the wife does all the drudgery of the household, besides a part of the drudgery of the shop, the mine or the field. There are European states where the sturdy yeoman thinks it well enough to yoke his wife and his cow to the plow while he trots contentedly behind the handles. Even in the cities of our country, this grand Republic, it is no uncommon sight to see the girl or woman pushing about the streets the huckster's cart from which the man sells the fruit or vegetables and pockets the proceeds. The man employed in the factory, when he quits work stops to rest; the woman drops her thread in the shop or mill to pick it up again in the home. The farmer's work is usually done at the going down of the sun, or at most a little later; the farmer's wife works all the day and when evening comes business still goes on and she sits down and plies her needle or her knitting while the good man smokes. You say this is an old story. Granted; but when women are successful in these pursuits, under adverse circumstances, and many times by her economy, advice and far-seeing is instrumental in making the fortune of the man, or saving him from bankruptcy, why is she not capable of, and why can she not be successful in doing all these things for herself. Women engaged in the higher pursuits of the professions, literature, etc., are

bound by no lighter thralldom, especially if they have homes, husbands and children. The business man shuts himself up in his office or his store and gives his mind and his time wholly to the work in hand. When it is done he rests till another day brings forth its work. The business woman is lucky indeed if she can concentrate her mind for the time being upon her work, and when it is done there are a hundred and one demands upon her in her position of housekeeper, wife and mother, and in fulfilling them she often uses the hours which should have been given to rest.

There is no greater drudge upon the face of the earth than the woman who undertakes to do man's work and a woman's work too. The society woman may not toil so hard with her brain or her hands but the demands of fashion on the one hand and the husband and baby on the other, the business of successfully outdoing some other society woman, and the sad effort to make the most of everything, and present the appearance of living better than they can afford to, often wears out the nerves of women before their bodies have become matured. The domestic drudgery in the one home and the society drudgery in the other, neither of which admit of a real vacation, are samples cut from the same piece.

An able woman, intellectually capable, high spirited, courageous, ambitious, tied to a fat, slothful incapable husband, is often censured for attempting to better their financial condition or outward appearance by taking the reins in her own hands, and is too often denominated a shrew. There is no certainty that any of the great shrews of history altogether deserve the wealth of opprobrium that has been cast upon them. Their historians have been of the sterner sex, and their faults usually appear to have been of the nature of intrusions into activities that were considered as masculine prerogatives. It is said that the easy-tempered Socrates used the high temper of Xantippe as a whetstone upon which to sharpen his wits, and he no doubt provoked her to the outbursts of household wrath which have made her so famous for shrewishness.

George Eliot has said "Wooden folks had need ha' wooden things to handle." It is true that when a wooden man captures for a wife a bright, quick, high strung flesh and blood woman, the clash between stupidity and brilliancy is apt to make the sparks fly. But there is one consolation, these *business women* in the household, whose spirit enables them to keep the tongue in good running order, generally manage to have spirit enough to keep the heels of the stockings in good repair, the aprons tied, and the hair combed.

Should not every woman be as fine and great as she is capable of being? With all her sentiment uncultivated and her intellect and general ability dwarfed, a woman is but half a woman. Is a

woman less a woman who is capable of giving an original and concise opinion in regard to a book she has read, or upon any question of general interest, either political, social or moral, or who is capable of discussing business matters in a business way? The time is past when a woman who has ideas and dares to express opinions is a phenomenon.

An Italian count once married a beautiful lady who belonged to a noble family. At a dinner given soon after the marriage, as the gentlemen were discussing some great political question the lovely countess expressed herself very clearly and emphatically. When the guests were gone the count told her he was as much surprised as though one of the pictures of his ancestors had opened its lips and spoken. She asked him laughingly, "would you not have married me if you had known I could use my brains?" He replied, "I don't know, these women who think are sometimes dangerous."

Business women in 1877, conceived and carried out at the risk of their capital and reputation for business sagacity the philanthropic idea of erecting tenement houses in Brooklyn, in the construction of which are observed every written and many unwritten laws for the safety, comfort and moral purity of their inmates. They are filled the year round and though they shelter 1100 souls they are proverbial for their freedom from crime and disease as compared with hundreds of other tenements owned by reputable citizens. No one who has taken pains to investigate can over estimate the business qualities of the women or the good accomplished by the organization of ladies in New York City known as the Health Protective Association. It is estimated that the saving to the United States in a year, through measures taken by this association for prevention of the spread of contagious diseases is about \$300,000,000.

Women long for pecuniary independence as much as men do, and this has been one main incentive which has drawn them into business relations with the world. There are women of such great business ability that they have proven themselves a match for the sharpest financiers.

Donna Cousins, of Chili, rivals the financiers of all times. At her husband's death he gave her absolute control of his immense wealth, and she has proved herself a veritable queen of finance. She is as famous for her charities as for her business ability. To the people under her employ in farming, mining, etc., she pays out monthly, \$100,000. She owns the only large coal mine in South America. She has copper and silver smelting works of great value and has a fleet of eight iron steamships. All this vast enterprise she controls and directs.

Harriet Hosmer chiseled her way into fame and fortune.

Mrs. Anna Bryan, of Georgia, has charge of certain cheap publications in New York city at a salary of \$6000 a year.

Mrs. Ann S. Stevens at her death left a handsome fortune of \$300,000, the result of literary labor and profitable investment. Not long since, the daughter of the secretary and treasurer of one of the largest street car lines in Pittsburg was elected to fill the vacancy caused by her father's death. She had taken up the work during her father's illness and had succeeded so well in keeping the books in shape, collecting the bills, paying the employes and buying of feed and stock for the company, that, recognizing the qualities of a business woman they complimented her by electing her to the responsible position.

Miss Braddon makes more money by fiction than any other writer of the day. She gets \$5000 for the serial rights of a new story and as she averages two or three in a year, her income from that source is considerable.

Miss Maria Teeple, an Iowa woman, owns and manages a livery stable in one of the thriving cities in that state, and can buy or sell half the business men in the town. She expects and receives the most courteous treatment from her employes and patrons and talks no more "horse" nor "slang" than the average woman.

Mrs. Mary Lynch, a New Orleans woman, who operates a paying box factory, supports her own five children and seven orphan children which she has adopted. All she owns she has made herself.

The history and successes and reverses of the late lamented Emma Abbott is fresh in the minds of every one. It is only one of many who have become independent on the stage.

The Cincinnati board of inspectors of stationary engineers have granted to Miss Mary Brennan a license to run an engine. Miss Brennan is said to be the first woman so honored in this country.

The city of Milwaukee now boasts of two women on her school board both of whom have been successful in a business way. Miss Kate Pier who is successful in law and Mrs. Merrill who has won her reputation as a financier and business manager.

Who will attempt to gainsay the business ability of those women who worked with the sanitary commission and who followed the army from post to post financing the hospital supplies during the last war. Many a soldier owes his life to the brave Mary Safford, and if mother Bickerdyke, Mary Livermore, Amy Brady, Miss Dix and others did not display a remarkable diplomacy and business ability in the management of hospital and other supplies during those trying times, point out to me a *man* who did.

Few at this time will deny the statement that women make the best nurses at the bedside of the sick. Every day experiences of the world demonstrates the fact. Training schools for nurses are being established in all large cities, and scores of women expect to follow nursing as a business. And what more responsible business can one have than that of nurse or physician? There is probably no field of labor into which women have ventured where they have met with more opposition than that of the practice of medicine. In the admission of women to the professions, the nineteenth century is only following out the example of bygone centuries. Among the oldest of universities, that of Bologna, France, famous for its law studies, and that of Salerno, Italy, for its achievements in medicine were established in 1109. Three years study of logic had to be gone through before a student could enter the medical department. There five years had to be spent and a degree was not given until a year had been passed under a skilled practitioner. These are interesting facts in connection with the still more interesting fact that at both Salerno and Bologna women, as well as men, were admitted to all the privileges of these universities on equal footing, and for three centuries their female graduates were in good standing as physicians and medical writers. In Bologna, degrees in law were conferred alike on learned men and women, women were not debarred from holding professorships, the study of canon law requiring six and that of civil law eight years. Thus it is seen that the admission of women to equal educational rights in our Universities and the recognition of the business ability of women is not a recent venture, but has all the sanction of ancient precedent.

Dr. Elizabeth Blackwell was the first lady to receive a medical diploma in this country but she has been steadily followed by others who dared to brave the epithets cast after them until today, few towns of any size but have one or more lady physicians proving themselves successful in business. Dr. A. Jacobi, an eminent physician of New York City, married Dr. Mary Putnam, of the same city. Both have earned honored places in practice and in the literature of medicine. Neither can be considered the superior of the other, both have shown originality, patience in work and breadth of character. Both hold professorships and each are alike honored by their confreres. The business ability of Lady Dufferin has made her famous in England and India, and her name will be handed down to posterity as a public benefactor. Lady Dufferin accompanied her husband to India, and at once interested herself in the education of women of that country as medical practitioners. She founded the National Association for supplying female med-

ical aid to the women of India and established courses of instruction for native women at Calcutta, Bombay, Madras and other places. Ten per cent. of the students of the University of Zurich, are women. The triple qualification of the Conjoint College of Physicians and Surgeons, in Edinburg and Glasgow, have been recently bestowed upon two ladies. This is the first time that women have been placed on the Medical Register by a Scotch diploma. The Royal University, of Ireland, last year bestowed diplomas upon nine women. Law and dentistry have had their devotees and it cannot be disputed that we have had creditable work in both professions. Lady stenographers have become fixtures in almost every office, and female notaries public are not uncommon.

The practice of Pharmacy is a field which has given women an opportunity to display business ability and the number of successful lady pharmacists throughout the country is rapidly increasing. At the last examination of pharmaceutical students in Holland University, thirty-five women received certificates while only twelve men were successful. Women pharmacists are becoming almost as common as women physicians and are as successful in their business ventures as their male competitors.

Miss Bessie White, a graduate of the Department of Pharmacy in the University of Michigan, was the first woman who applied for license to practice pharmacy in Kentucky. The State Board refused to issue a certificate, although she had paid her fee, exhibited her diploma and offered to stand the test of any examination the Board might make, on the grounds that being a woman she was not a graduate of Pharmacy within the meaning of the law. She sued out a writ of mandamus before the Louisville Law and Equity Court to compel the Board to issue the certificate. Judge Holt, in sustaining the writ, said: "It is gratifying to see energetic American women coming to the front in these honorable pursuits. The history of civilization in any country, shows that it has merely kept pace with the advancement of its women. The Brahmins wife was burned with his dead body; the Mahommedan woman is a slave for the man; the husband of the English wife formerly had a right to chastise her and by a fiction of law her legal identity was completely absorbed in him. We are leaving mockeries behind us, and it is gratifying that these matters are a long way in the past."

Wisconsin claims among her business women a large number of successful pharmacists and physicians. My short residence in your state has prevented a personal acquaintance with them.

My paper is already too long but there seems to be so much to

say upon this subject that I am loath to give it up.

Every married woman will admit one thing. Women have always "managed things" only they do not always get credit for it. But there are successful business women, and when such an one steps into the arena to fight for the conquest in business life, men with whom she comes in contact recognize it at once and treat her with the same courtesy and regard they give to a man doing business with them. Women are not always successful in business any more than men are, and those who can make money cannot always keep it. Women in business as a rule are farseeing and cautious. These are advantages. They are changeable, which is a great disadvantage. They are easily discouraged which is an evil only time can cure. The greatest danger to business women is, they attempt often a great deal more than they can accomplish. Men seldom do this. It belongs to a woman to do half a dozen things at once. It seems to be part of her nature, and this, more than anything else, is going to be a stumbling block to the business woman of to-day, and there will be many bitter failures before they learn that "one thing at a time and that well done" makes a successful business, and should be the motto of their lives when they undertake to work with others in a common cause.

ROSA UPSON LIEBIG,
Portage, Wis.

Miss Clara Mae Abbott being unavoidably detained Mrs. R. J. Washburne acted as secretary pro tem.

Thursday morning another session was held at which considerable business was transacted and the following officers elected:

President—Mrs. R. J. Washburne, Palmyra.

First Vice-President—Mrs. Henry Rollman, Chilton.

Second Vice-President—Mrs. E. D. Pardee, Wausau.

Secretary—Mrs. Chas. Jerman, Milwaukee.

Treasurer—Mrs. A. E. Meiding, Milwaukee.

Mesdames Crombie, Dutro and Jerman were appointed a committee to procure badge pins for the ladies of the association.

Eight ladies joined, making the total membership fifty-one.

Notes Gathered at the Meeting.

The Sheboygan meeting was everything that the boys there promised. The city was decorated with flags and streamers, and it seemed a general holiday. Thursday, every drug store in the city closed, and all went to the games. To give a complete list of the games and prizes won, would take too much space, but suffice it to say that Wisconsin, this year, beat them all. The fun commenced Tuesday evening when the traveling men paraded the streets with a full brass band, to the opera house, where they gave an entertainment that many a professional company might be proud of. Wednesday afternoon, after the meeting, all went to a large and beautiful park, where all kinds of games were in progress. In the evening a reception and ball was given the visitors which was largely attended. Thursday afternoon was given to games of all kinds at the park, and Thursday evening was the crowning feature, the wooden shoe parade. An hour before the parade started, the streets were crowded with thousands of people. When the line began to move down the street, the thoroughfare was filled with people to the street car tracks. All the participants in the parade wore wooden shoes and costumes of all descriptions were seen, some of which were ridiculous in the extreme. The procession was led by Schmidt's military band, followed by the golden key of the city hung on a pendant, and below was the inscription, "Key of the City." Behind came a large number of the ladies of the auxiliary and the traveling men and druggists. All of the drug stores were visited, the procession filing in and out of each one, each proprietor being presented with an elegant present by the traveling men. The procession moved through the principal street going to the park, where the evening's fun was finished by a grand ball and supper. The universal opinion of the druggists of Wisconsin is that the traveling men are a host in themselves, and "we must have them."

ROLL OF MEMBERS.

Members are requested to notify the secretary of change of residence, death of members in their locality, or errors in the roll.

Allen, H. B.....	Richland Center.....	1880
Alter, O. A.....	Manitowoc.....	1882
Arnold, R. E.....	Fairchild.....	1885
Atkinson, Thomas J.....	Markesan.....	1892
Andrews, Dale.....	Brillion.....	1892
Aldrich, M. J.....	Norway, Mich.....	1892
Albers, W. W.....	Wausau.....	1894
Abbott, Clara Mae.....	Milwaukee.....	1895
Aust, C. W.....	West Superior.....	1895
Brown, F. B.....	Oconomowoc.....	1890
Baker, J. P.....	Janesville.....	1880
Bauman, Geo.....	Oshkosh.....	1880
Bartlett, George W.....	Albany.....	1881
Barker, O. D.....	Milwaukee.....	1881
Buchan, Thomas G.....	Union Grove.....	1881
Baumbach, Charles A.....	Milwaukee.....	1881
Bechmann, C. R.....	Fountain City.....	1882
Breed, George N.....	Fond du Lac.....	1882
Bass, Henry.....	Oshkosh.....	1882
Beyschlag, Chas.....	La Crosse.....	1883
Bellerue, A. T.....	La Crosse.....	1883
Beule, Peter.....	Beaver Dam.....	1884
Burns, J. W.....	Oakfield.....	1886
Burns, Thomas.....	Oakfield.....	1886
Bartel, Max.....	Milwaukee.....	1887
Boehme, C. A., Jr.....	Hampton, Iowa.....	1887
Bender, Wm.....	Milwaukee.....	1887
Boclo, Hugo.....	Cedarburg.....	1888
Bergwald, E. A.....	Milwaukee.....	1888
Blestren, H. M. G.....	Eau Claire.....	1889
Berg, George.....	Appleton.....	1890
Borden, B. B.....	Plainfield.....	1891
Bancroft, C. F.....	Horicon.....	1891
Blankenhorn, Albert.....	Milwaukee.....	1891
Baldauf, George.....	Milwaukee.....	1891

Bechaud, A. R.	Jefferson	1892
Boberg, Otto.	Eau Claire	1892
Breitenstein, W. R.	Fond du Lac	1892
Banaskynski, J. C.	Milwaukee	1892
Berger, C. F.	Milwaukee	1894
Buchta, Carl G.	Elkhorn	1893
Burnham, J. W.	Richland Center	1894
Bauman, C. D.	Omro	1894
Bartlett, R. M.	Albany	1895
Conrath, Adam	Milwaukee	1880
Conradi, August	Chicago, Ill.	1880
Clarke, W. P.	Milton	1880
Curtis, J. W.	Madison	1880
Christensen, L. A.	Chicago	1891
Crane, Edwin W.	Tomah	188e
Canfield, T. M.	Necedah	1882
Crow, Frank M.	Evansville	1885
Cohn, A. H.	Milwaukee	1887
Collyer, B. B.	Beloit	1890
Callendar, W. J.	Union Grove	1891
Cornwell, Elbert H.	Clinton	1891
Comer, P. J.	Mauston	1894
Corbett, G. W.	Plymouth	1894
Chantler, V. H.	Madison	1894
Clarke, H. P.	Brodhead	1895
Cadman, John	Stevens Point	1895
Drake, Harvey W.	Milwaukee	1880
Drake, Henry T.	Milwaukee	1880
Dunlap, Chesley L.	Waukesha	1881
Dohmen, Fred	Milwaukee	1881
Dana, James T.	Fond du Lac	1882
Douty, C. S.	Omro	1882
Dohmen, W. F.	Milwaukee	1885
Dumez, A. A.	Cashton	1886
Dietz, Emil	Milwaukee	1887
Dunlap, W. P.	Waukesha	1888
Dohmen, Henry	Milwaukee	1888
Dieter, John	Richland Center	1889
Dale, M. D., George	Iola	1889
Dadd, R. M.	Milwaukee	1891
Draper, A. E.	West Superior	1892
Davis, W. L.	Racine	1894
Douglass, W. A.	Glenwood	1895
Dettloff, Otto C.	Chippewa Falls	1895

Dexheimer, G. W.....	Ft. Atkinson.....	Reinstated
Dexheimer, H. J.....	Ft. Atkinson.....	Reinstated
Evans, Enoch.....	Cambria.....	1880
Esau, Fred.....	Milwaukee.....	1880
Edwards, W. M.....	Portage.....	1880
Eberle, H. T.....	Watertown.....	1881
Engsberg, Conrad.....	Lake Mills.....	1881
Ellis, A. G.....	Brooklyn.....	1884
Eppinger, J. A.....	La Crosse.....	1885
Evans, Dr. J. M.....	Evansville.....	1886
Eggers, Dr. Gus C.....	La Crosse.....	1892
Estey, E. M.....	St. Paul, Minn.....	1894
Elvis, G. H.....	Colby.....	1894
Emmerich, H. E.....	Milwaukee.....	1895
Ford, Daniel.....	Barneveld.....	1881
Ford, S. W., Jr.....	Oconto.....	1882
Fischer, Wm.....	Norwalk.....	1882
Fisher, A. F.....	Baraboo.....	1885
Foster, C. P.....	Milwaukee.....	1884
Fitzgerald, J. B.....	Ironton.....	1884
Favor, H. W.....	Boscobel.....	1887
Faber, Charles A.....	Milwaukee.....	1893
Forsyth, A. P.....	Martell.....	1891
Frank, H. O.....	Milwaukee.....	1892
Fancher, F. G.....	Racine.....	1894
Fugina, E. C.....	Fountain City.....	1895
Gates, W. H.....	Milton Junction.....	1880
Graham, John.....	Portage.....	1880
Griffiths, P. A.....	Oshkosh.....	1881
Gieseler, Edward.....	Milwaukee.....	1881
Goes, Gustave.....	Milwaukee.....	1881
Goes, Wm.....	Milwaukee.....	1881
Givens, Frank M.....	Fond du Lac.....	1881
Gray, D. M.....	Detroit, Mich.....	1887
Gieseler, Edward.....	Milwaukee.....	1887
Grimmer, F. E. Sr.....	Mauston.....	1888
Geisse, C. F. W.....	Fond du Lac.....	1888
Gansen, W. Q.....	Marion.....	1891
Gessler, Max.....	Milwaukee.....	1891
Graves, Charles.....	Rhineland.....	1881
Gansen, Albert.....	Hortonville.....	1891
Gieseler, Charles L.....	Racine.....	1891
Grimm, Aloys.....	Cassville.....	1894
Griswold, E. W.....	Neenah.....	1894

Gebhart, H. M.....	Two Rivers.....	1895
Heimstreet, E. B.....	Janesville	1880
Hollister, A. H.....	Madison	1880
Huber, J. C.....	Fond du Lac.....	1880
Hammersley, W. H.....	Geneva Lake.....	1880
Hammel, Joseph.....	Medford.....	1881
Hollister, E. H.....	Kenosha.....	1881
Hackendahl, H.....	Milwaukee.....	1881
Hawes, J. A.....	Appleton.....	1882
Hinkson, Edgar E.....	Poynette.....	1883
Hals, O. C.....	La Crosse	1883
Hill, H. D.....	Westfield	1883
Humphrey, A. J.....	Waterloo.....	1884
Hannon, F. J.....	Fort Howard.....	1886
Heider, H. G.....	Oshkosh	1886
Hoya, Wm. C.....	Milwaukee.....	1887
Hayden, Albert, M. D.....	Shullsburg.....	1888
Hocking, W. J.....	Florence	1888
Heimstreet, C. S.....	Lake Mills.....	1889
Hensel, Geo. H.....	Milwaukee.....	1890
Hasler, S. J.....	Muscoda	1891
Hvamsahl, C. M.....	Eau Claire.....	1891
Hooper, Edgar S.....	Darlington.....	1891
Hopp, Adolph.....	Milwaukee.....	1891
Hinz, Rich C.....	Milwaukee.....	1892
Horn, E. A.....	Oshkosh	1892
Hiecke, Wm.....	Milwaukee.....	1892
Hipke, A. S.....	Chilton.....	1892
Haffmier, L. A.....	Waupaca.....	1892
Hilfert, H. O.....	Kaukauna	1893
Huber, E. J.....	Fond du Lac.....	1893
Hunkel, C. G.....	Milwaukee.....	1894
Harbridge, F.....	Racine.....	1894
Hempe, E. A.....	Milwaukee.....	1894
Horneffer, W. G.....	Milwaukee.....	1894
Heck, C. H.....	Chicago.....	1894
Hags, J. A.....	New York	1895
Hayden, J. J.....	Butternut.....	1895
John, D. W.....	Marinette.....	1885
Jurgensohn, B. G.....	Manawa.....	1890
Johnson, J. F.....	Martell.....	1891
Johnson, Edward.....	Watertown.....	1891
Jenkins, G. W.....	Kilbourn City.....	1894
Jones, J. A.....	Columbus.....	1895

Kent, Wm. F.....	Beloit, Kansas	1891
Keinth, G	Milwaukee.....	1881
Kaas, Von A	Oshkosh	1881
Kirkby, W. R	Racine.....	1882
Kremers, Edward.....	Madison.....	1886
Kamps, J. H.....	Appleton.....	1887
Krembs, Ernest.....	Milwaukee	1887
Kropp, Wm	Milwaukee.....	1887
Kaiser, Wm. F.....	Milwaukee.....	1887
Knorr, R. E.....	Colfax.....	1890
Kettler, Edward Jr.....	Milwaukee.....	1891
Krause, Henry C.....	Milwaukee	1891
Knudson, K	Winneconne.....	1892
Kesten, George.....	Fond du Lac.....	1893
Kressin, L. H.....	Milwaukee.....	1894
Koebornick, W. E.....	Ripon.....	1886
Lange, L. A.....	Chicago	1880
Lightner, J. A	Randolph	1880
Ladwig, F. F.....	Milwaukee.....	1881
La Meux, L. A	Seymour.....	1881
Lightner, J. S.....	Randolph.....	1881
Little, C. S	Appleton	1882
Lein, Christian.....	La Crosse	1883
Lewis, L. V.....	Sun Prairie	1884
Lewis, Henry.....	Madison	1885
Lonquest, John.....	Cumberland.....	1886
Lily, J. K	Indianapolis.....	1886
Lyons, E. M.....	Brodhead	1887
Leutsker, R. J.....	Antigo.....	1887
Ladwig, Paul.....	Milwaukee	1887
Lochmes, Wm. T.....	Milwaukee	1887
Luckenbach, Anton Henry.....	Oconto.....	1891
Lambeck, H.....	Milwaukee.. ..	1891
Lochner, John T.....	Racine	1891
Lapham, Mrs. A. E.....	Nekoosa	1892
Luethé, A	Milwaukee	1893
Lemcke, H. G.. ..	Columbus.....	1893
Lorge, J. J.....	Eagle.....	1894
Lyon, Will B.....	Elkhorn	1894
Liebig, Rosa, M. D.....	Portage	1894
Marlott, D. G	Racine	1880
Mayers, Andrew A	Madison	1880
Melaas, Ole B	Stoughton	1881
Martin, Thomas L	Wilton	1881

Meibohm, H.....	Milwaukee.....	1881
Meyer, Lewis	Milwaukee	1881
Meissner, Charles A.....	Milwaukee.....	1882
Masbaum, John.....	Crandon.....	1882
Mahlendorf, A., Jr	Sheboygan	1882
Menges, A. F.....	Madison.....	1884
Menkey, L. T.....	Hudson.....	1887
Mitchell, A. S.....	Milwaukee.....	1887
Mieding, A. E.....	Milwaukee.....	1887
Meissner, Paul E.....	Milwaukee.....	1888
Mathews, C. F.....	Viola.....	1889
Merrill, B. D.....	Superior.....	1889
Meyer, L. C.....	Sheboygan.....	1890
Maurer, Emil	Arcadia.....	1890
Melcher, Wm. August.....	Winneconne.....	1891
Mandeville, W. W.....	Milwaukee.....	1891
McCullough, E. P.....	Milwaukee.....	1891
Medland, F.....	Stanley.....	1891
Martens, John A.....	Milwaukee.....	1891
Morrison, A. C.....	Milwaukee.....	1892
McRaith, M. J.	Grand Rapids.....	1892
Mitchell, Jos	Fond du Lac.....	1893
Meissner, F. M	Milwaukee.....	1893
McMillan, M. W.....	Milwaukee.....	1894
Mead, J. L.....	Appleton.....	1894
McShane, J. A.....	Oshkosh.....	1894
Morris, M. D.....	Racine.....	1894
Mueller, F. P.....	Woneuoc.....	1894
McKnight, L. A.....	Rosendale.....	1895
Menelebaum, H	Appleton.....	1895
Mieding, R. H.....	Stevens Point.....	1895
Moe, O. C.....	Stevens Point.....	1895
Naffz, Charles H.....	Madison.....	1890
Newton, F. M.....	Sparta.....	1883
Naffz, Gustav.....	Wausau	1891
Nehls, R. C.....	Juneau.....	1893
O'Neil, H. L.....	Milwaukee.....	1880
O'Neil, C. H.....	Milwaukee.....	1881
Olson, T.....	Grantsburg	1886
Otto, August O.....	Centralia	1891
Pardee, E. D.....	Wausau	1880
Pardee, A. A.....	Madison	1880
Patton, Edwin B.....	Waupun	1881
Prasch, Martin G	Burlington.....	1881

Pfeifer, Charles	Plymouth	1882
Pfeil, Anton	Fond du Lac	1882
Prasch, F. J.	Burlington	1882
Poppe, H. B. B.	Scandinavia	1882
Palmer, W. P.	Sparta	1883
Pierson, J. S.	Trempealeau	1883
Pflueger, W. F.	Milwaukee	1886
Playter, E. H.	Eau Claire	1889
Purdy, E. S.	Portage	1889
Prideaux, Wm. H.	Mineral Point	1891
Puchner, Edward, M. D.	Wittenberg	1891
Passino, Franklin G.	South Kaukauna	1891
Park, Willis H.	Downing	1891
Paas, John H.	Campbellsport	1892
Pritchard, T. E.	Stockbridge	1892
Ponkey, H. H.	Cumberland	1893
Peters, H. A.	Oconomowoc	1894
Rollman, Henry.	Chilton	1880
Robinson, John	Green Bay	1880
Rex, Henry	Hustisford	1882
Runckel, Lewis	La Crosse	1883
Ryall, E. C.	Augusta	1884
Rostad, Dr. K. T.	Spring Valley	1884
Rynning, S. G. M.	West Salem	1884
Reister, Edward	Chippewa Falls	1885
Ruenzel, H. G.	Milwaukee	1885
Reeve, John	Fond du Lac	1886
Ritmeier, Wm.	Milwaukee	1887
Riechel, H. C.	Milwaukee	1888
Raben, C. E.	Milwaukee	1890
Ray, Fred O.	Jefferson	1891
Roach, Robert J.	Ridgeway	1891
Roerig, Wm.	Milwaukee	1891
Rosch, John	Menasha	1892
Remington, L. J.	Fond du Lac	1892
Rawson, M. A.	La Crosse	1893
Reinardy, S. M.	Burlington	1893
Rice, Charles W.	St. Paul, Minn.	1893
Reich, W. F.	Shawano	1895
Roberts, J. E.	Cambria	1895
Sauerhering, R.	Mayville	1880
Schranck, Henry O.	Milwaukee	1880
Schorse, Otto	Milwaukee	1880
Sallade, W. A.	Fond du Lac	1890

Sumner, Edwin.....	Madison.....	1880
Smith, C. A.....	Beloit.....	1880
Sykes, H. D.....	Milwaukee.....	1880
Spence, T. H.....	La Crosse.....	1881
Stearns, H. C.....	Janesville.....	1881
Sniteman, Charles C.....	Neillsville.....	1881
Schmidt, J. F. W.....	Oshkosh.....	1881
Spence, W. G.....	Spring Valley.....	1881
Strothmeyer, C. H.....	Milwaukee.....	1881
Strothmeyer, H. L.....	Milwaukee.....	1881
Sedgwick, F. A.....	Clintonville.....	1881
Stevens, C. D.....	Janesville.....	1882
Stock, Emil F.....	Manitowoc.....	1882
Starks, Edgar.....	Amherst.....	1883
Slater, John W.....	Berlin.....	1883
Stevens, W. B.....	Sibley, Iowa.....	1883
Scheldrup, A. F.....	Stoughton.....	1883
Swain, F. N.....	Madison.....	1884
Suits, C. G.....	Medford.....	1885
Sauerhering, Edward.....	Mayville.....	1886
Simonson, J., M. D.....	Wausau.....	1887
Stilcke, C. A.....	Milwaukee.....	1887
Schultz, H. L.....	Milwaukee.....	1887
Spiegelberg, Emil.....	Milwaukee.....	1888
Smith, F. O.....	Richland Center.....	1888
Stevens, J. V., M. D.....	Chicago, Ill.....	1889
Sanner, W. L.....	Waukesha.....	1890
Spencer, C. A.....	Waupaca.....	1890
Schutz, Geo. J.....	Antigo.....	1890
Stone, Carlos F.....	Marinette.....	1891
Stapleton, Edw. M.....	Watertown.....	1891
Sommer, Richard.....	Colby.....	1891
Segall, Wm.....	Milwaukee.....	1891
Stephany, J. K.....	Antigo.....	1892
Sexton, W. A.....	Marshfield.....	1894
Sperry, E. D.....	Phillips.....	1894
Schulze, Theo.....	Racine.....	1894
Stone, H. G.....	Racine.....	1894
Sontag, Geo. L.....	Neillsville.....	1894
Snyder, C. B.....	Great Forks, Minn.....	1894
Shesgreen, David, Jr.....	Duluth, Minn.....	1895
Shuman, C. B.....	Madison.....	1895
Smith, E. O.....	Janesville.....	1895
Trayser, Anthony.....	New London.....	1895

Thieman, F. W.....	Sheboygan	1881
Trott, von August.....	Milwaukee.....	1881
Thiele, Otto A.....	Milwaukee.....	1881
Townsend, A. J.....	Wyocena.....	1883
Tomkewitz, J. W.....	Milwaukee.....	1887
Tanner, H. E.....	Oshkosh	1890
Taylor, D. A.....	Stevens Point.....	1890
Thompson, H. G.....	Menekauna.....	1890
Tonne, Wm. H.....	Medford.....	1892
Tauger, A. S.....	Fond du Lac.....	1893
Taylor, D. W. H.....	Brodhead	1893
Tillou, H. D.....	West Lima.....	1894
Taylor, W. W.....	Stevens Point.....	1895
Trayser, M. C.....	New London	1895
Urban, L. C.....	Milwaukee.....	1894
Volkmann, Henry.....	Kingston.....	1886
Vivian, Alfred.....	Mineral Point.....	1894
White, C. M.....	Chicago.....	1880
Window, A. J.....	Altoona.....	1880
Woodward, O. L.....	Clinton Junction.....	1880
Wolfrum, Fred.....	West Bend.....	1881
Widule, Christian.....	Milwaukee.....	1881
Wiese, R.....	Milwaukee.....	1881
Williams, O.....	Milwaukee	1881
Wheeler, H. J.....	Depere	1882
Wright, E. M.....	Prairie du Chien.....	1882
Wooster, A. L.....	Osseo.....	1882
Woodnorth, J. H	Milwaukee.....	1882
Williams, M. J	Oshkosh.....	1882
Williams, W. E., M. D	Cambria	1884
Washburne, R. J.....	Palmyra	1885
Whitman, A. C	Hurley	1887
Ward, Jennie R.....	Necedah	1887
Woodward, O. H	Kenosha.....	1888
Wright, E. E.....	Prairie du Chien.....	1889
Williams, B. C.....	Waukesha.....	1890
Watson, Frank.....	Chippewa Falls.....	1890
Weber, Herman.....	Milwaukee.....	1891
Weiss, Anton.....	Milwaukee.....	1891
Warren, Chas. I.....	Milwaukee.....	1891
Werner, Reinhold.....	Milwaukee.....	1891
Wardrobe, W. G.....	Brandon.....	1892
Woodnorth, Frank.....	Manawa.....	1892
Werner, B. C.....	Augusta.....	1893

Wickern, Chas.....	Racine ..	1894
Wright, Chas. E.....	Platteville.....	1894
Weisenborn, C. A.....	Milwaukee.....	1804
Wehle, W. J.	West Bend.....	1894
Yates, C. F.....	Janesville	1881
Young, L. M	Cadott.....	1887
Zaegel, M. R.....	Sheboygan.....	1885
Zimmerman, R. E	Alma Center.....	1889

HONORARY MEMBERS.

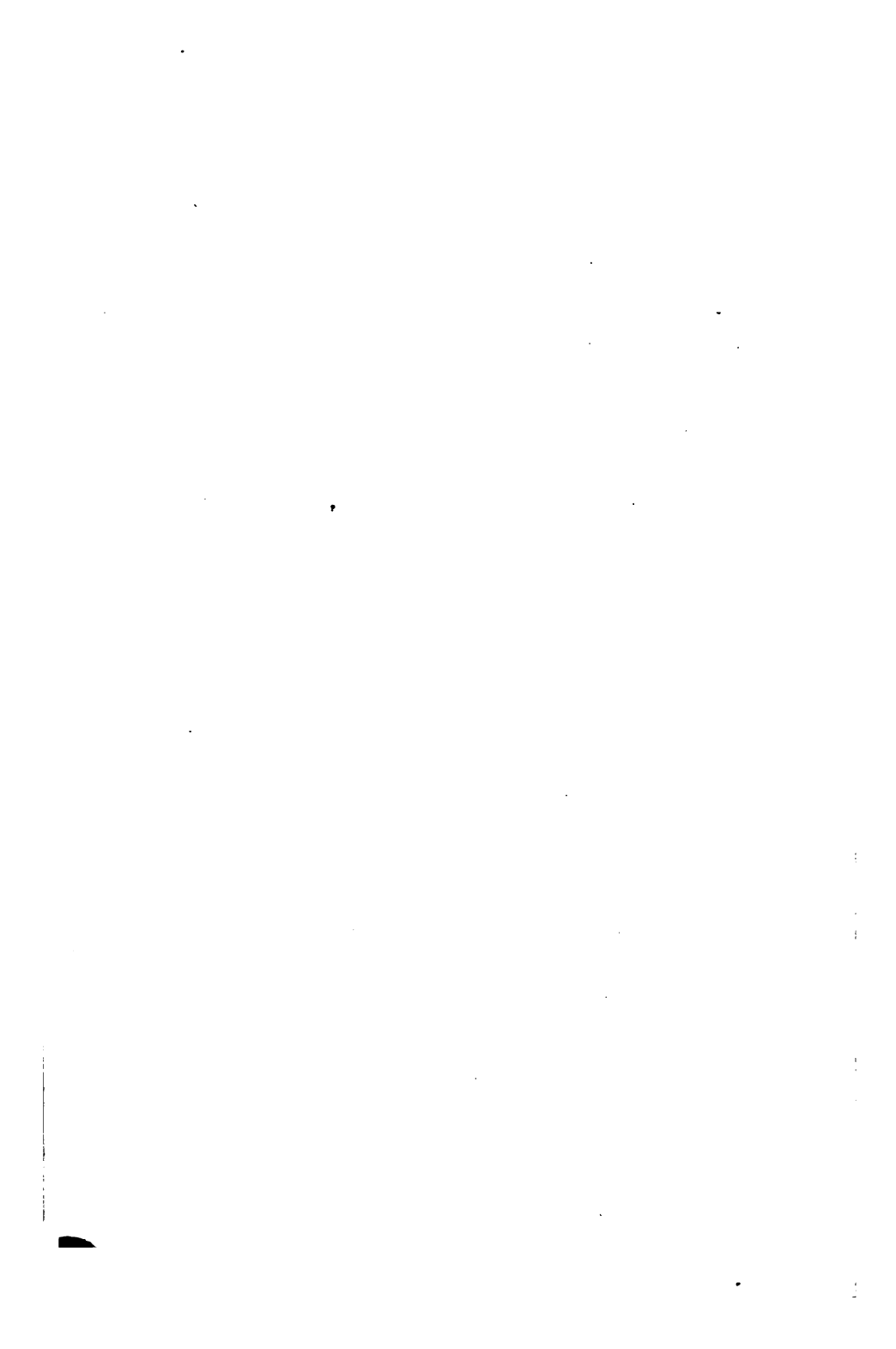
C. M. Smith, M. D.....	Evansville	1882
Prof. F. B. Power.....	Passiac, N. J.....	1884
Dr. Frederick Hoffman.....	New York, N. Y.....	1890

And your committee would recommend that the following names be dropped from the roll; some for non-payment of dues and others having left the business.

C. H. Avery,	J. A. Froelich,
F. Wardrobe,	O. K. Ranum,
W. G. Palmer,	O. Van Schallern,
F. M. Crouse,	T. P. Crosse,
J. W. Coon, M. D.,	Anton Mertes,
G. F. Kuehnel,	J. M. Meacham,
Samuel Wright,	Otto Kuehmsted,
C. H. Krouse,	J. J. Gerber,
L. Kortebein,	Julius Andrae, Jr.,
W. C. Wallschlaeger,	Oscar Zinn,
M. B. Pittman.	H. H. Voss,
L. W. Potter,	J. L. B. Thomas,
W. S. Lamb,	J. S. Williams,
R. S. Young,	John Finney,
A. G. Neumeister,	A. F. Blackburn,
I. H. Tarrant.	

The following have resigned during the year:

C. H. Rex, Hustisford,
 Henry Fess, Milwaukee,
 E. F. Mallory, Milwaukee,
 Jacob Cambier, Pueblo, Col.,
 Dr. A. Edwards, Reedsburg.



In Memoriam.

DIED-1894-5.

HERMAN DETTLOFF, Nov. 9, 1894.

ROBERT CONRADI, Nov. 14, 1894.

JOHN A. DADD, March 2, 1895.

M. A. SAWYER, March 5, 1895.



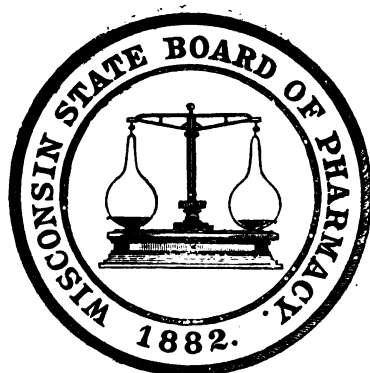
FOURTEENTH ANNUAL REPORT

—OF THE—

STATE BOARD OF PHARMACY

AUGUST, 1895.

WITH A LIST OF THE REGISTERED PHARMACISTS
OF THE STATE.



MEMBERS OF THE BOARD 1895-96.

Henry C. Schranck	Milwaukee	1896
E. B. Heimstreet.	Janesville	1897
C. R. Bechmann	Fountain City.....	1898
H. O. Frank	Milwaukee	1899
A. F. Menges.....	Madison	1900

OFFICERS 1895.

President.....	H. C. Schranck
Secretary and Treasurer.....	E. B. Heimstreet

FOURTEENTH ANNUAL REPORT OF THE STATE BOARD OF PHARMACY.

To the Wisconsin Pharmaceutical Association.

The members of the Board would make you this report for the year, as per section 167 Revised Statutes.

EXTRACTS FROM JOURNAL.

RACINE, AUGUST, 1894,—Regular meeting of the Board, three days session. Five certificates received from Licentiates of other states. Annual report of the Secretary and Treasurer made to the Governor and the Wisconsin Pharmaceutical Association. Forty-five applied for examination, of this number, eleven received certificates as licentiates, sixteen assistant and eighteen were rejected.

MILWAUKEE, NOVEMBER 1894—Regular meeting, six persons received certificates of registration. Thirty-nine applied for examination, the result being, ten received licentiate and fourteen assistant certificates, while fifteen were rejected.

MILWAUKEE, JANUARY 1895—Regular meeting. Five parties received their certificates by registration. Fifty-one applied for examination, of this number, fourteen received licentiate, and fifteen assistant certificates, and twenty-two were rejected.

BARABOO, MARCH 1895,—One certificate granted by registration. Seventy-four applied for and took examination, the largest class since the law was passed, of this number, twenty-seven licentiate and twenty-eight assistant certificates were granted, nineteen being rejected. This being the annual meeting of the Board, the secretary made report for the year, which was referred to the finance committee for inspection, reported as correct, adopted and placed on file. Meetings were appointed for the ensuing year as follows: Madison, June 19; Sheboygan, August 16; Prairie du Chien, October 9; Milwaukee, December 11, 1895; Milwaukee, February 14; Waupaca, April 12, 1896.

MADISON, JUNE 1895,—Regular meeting. A. F. Menges of Madison presented his papers as member of the Board for five years from April 13, 1895. Five persons were granted certificates by registration. President H. C. Schranck reported that he had made a visit through the southern part of the state and was convinced that it would be policy to send an agent through the state. Resolution was then passed empowering the president of the Board to engage such agent. A. F. Menges and C. R. Bechmann were appointed to furnish a list of schools of pharmacy having a similar course to the Wisconsin school. Fifty-two applied for examination, six received licentiate, sixteen assistant certificates, and thirty were rejected.

SUMMARY.

Five meetings were held during the year, nineteen days work of three sessions each day. Twenty-two were granted certificates by registration, having passed examination in other states. Two hundred and sixty-two applied for examination and certificates were granted to sixty-eight licentiates, eighty-nine assistants, and one hundred and four were rejected. The average this year being better than previous years, the applicants showing more care and study in preparing for their examinations.

From the passing of the Pharmacy law in 1882 to the present time, 1955 have attended the examinations, 582 received licentiate, and 600 assistant certificates, 773 being rejected, 193 being registered without examination, from other states. The Board records show that from April 1882 to August 1895, 1946 have received first grade certificates and 761 assistants. Of the first grade 697 have died, left the state or retired from business, leaving 1249 in force at this time. Of the assistants 459 have died, cancelled certificates by taking first grade, or dropped out, leaving 302 assistant certificates, making total number of registered pharmacists in Wisconsin 1551.

INTERCHANGE OF CERTIFICATES.

After an experience of several years, the Board is well satisfied with the results, and accept certificates from licentiates of other states as follows: The applicant must make out the form and send in together with the fee of \$5.00. He must present a certificate from the secretary of the Board where he was examined, showing a standing of 80 per cent. or over. He must present sworn affidavits from registered pharmacists where he has been employed showing five or more years experience in drug store. On receipt of papers as above, the secretary is authorized to issue registration. The records show about an even number coming and leaving the state. Up to this date 193 have been registered in this manner.

The past year 22, as follows: From Ill. 8—Minn. 5—Iowa 5—Mich. 3—N. J. 1.

THE WISCONSIN PHARMACY LAW.

Sections 1 and 2. Establish a board of pharmacy of five members to be appointed on the recommendation of the state pharmaceutical association.

Sec. 3. Defines the duties of the board, which are substantially the same as under the old law.

Sec. 4. Provides for the registration under the new law of all registered pharmacists under the former act. All new applicants must pass a satisfactory examination (fee \$5. \$3 to be refunded if unsuccessful) before the board, and have had five years practical experience, excepting that but two years are required from graduates of the pharmacy department of the university of Wisconsin and from other schools of like standing.

Sec. 5. Prescribes annual registration (the fee not exceeding \$2), and any pharmacist failing to procure such renewal within sixty days after second notice shall have been sent him by the board shall forfeit his registration, and again to become registered shall proceed as required for an original registration.

Sec. 6. Provides for registration of assistants, who shall be not less than 18 years of age, and have had two year's experience. Registration shall be subject to forfeiture on failure to procure annual renewal, as in the case of registered pharmacists.

Sec. 7. Requires that certificates be exposed in stores to which they apply, on penalty of \$10.

Sec. 6. Fixes fees for examinations and renewals.

Sec. 9. Makes it unlawful, on penalty of \$50, for any person to retail, compound, or dispense "drugs, medicines or poisons, except Paris green put up in packages labeled 'Paris Green Poison', or to institute or conduct any pharmacy, store or shop for retailing, compounding, or dispensing drugs, medicines or poisons in any town, city or village having 500 or more inhabitants, unless such person shall be a registered pharmacist, or shall employ and place in charge of such pharmacy, store or shop, a registered pharmacist." Any person who shall permit such compounding or dispensing in towns having over 500 inhabitants, except by a registered pharmacist, shall forfeit \$50. In towns having less than 500 inhabitants, the person who shall open a drug store or be in charge of same or compound or dispense medicines may be either a registered pharmacist or registered assistant. Provided, "that nothing herein shall be construed to in any manner interfere with any physician in regular practice from dispensing his own medicines, or preventing him supplying his patients with such articles as may

seem to him proper, or interfere with the making and vending of proprietary medicines in sealed packages with the name of the contents, the directions for using and the pharmacist registered in this state or physician by whom prepared and compounded thereon, nor with the sale of the usual domestic remedies, or with the exclusively wholesale business of any dealer." (It will be noticed that the effect of this provision is to prohibit any person, not a registered pharmacist, from dealing in patent medicines, excepting those prepared by a registered pharmacist or a physician in the state.)

Secs. 10, 11, 12 and 13. Relate to penalties for fraudulent representations to secure registration, to responsibility for the purity of drugs sold, to sales of poisons and to court procedures to recover penalties.

In regard to the changes in the law we quote from the *Western Druggist*, a journal of pharmacy that is authority.

"In comparison with the new Wisconsin pharmacy law the Illinois act, with all the virtues claimed of it by its sponsors, presents a somewhat lame and ragged appearance. The sections in the Wisconsin law specifying what shall be deemed offences under the act, and prescribing the penalties for violations, are adequate, compact and logical; those defining the duties of the board, the rights of registered pharmacists and the exemption from the general statute provisions are explicit in detail and correct in principle. The authors of the draft were evidently men of experience who knew what was wanted and how to supply it.

VIOLATIONS AND COMPLAINTS.

There has been the usual number of violations reported to the board, and they have found it necessary to employ an agent to visit places in the state. The cases that have come to trial are as follows:

No 42, Oct. 22. 1894. State vs. Ottmer Shallern, of Ripon. Dr. Shallern not registered and no registered man in store. Before Justice Parsons of Fond du Lac. Defendant fined \$50 and costs. Paid.

No. 43. Oct. 22, 1894. State vs. A. Ponte, defendant, clerk for O. Shallern of Ripon, not registered but sold poisons. Case before Justice Parsons, Fond du Lac. Defendant fined fifty dollars and costs.

No. 44.—Aug. 24th, 1894. State vs. Yahf Bros., of Princeton. Defendants are general merchants and sold Paris green contrary to the pharmacy law. Jury trial, defendants fined fifty dollars and costs. Defendants took appeal to circuit court.

No. 45—Jan. 18, 1895—State vs Giesse & Tauger, Fond du Lac.

Defendants allowed poisons to be sold by unregistered clerk. Fined \$50. and costs. Paid.

No. 46—Feb. 13, 1895—State vs D. D. Bronel, clerk for Giesse & Tauger of Fond du Lac. Defendant not registered but sold poisons in absence of registered man. Fined \$50. and costs.

No. 47—Jan. 19, 1895—State vs Yahr Bros., Princeton—Circuit Court at Dartford from Justice Court. Judge ordered verdict for defendants, as there was no proof that paris green was sold except in one pound and one-half pound packages.

No. 48—June 12, 1895—State vs A. A. Mayers of Madison. Defendant registered but left the store in charge of unregistered man. Before Justice Troan, verdict for defendant. Appeal taken to Circuit Court.

No. 49—June, 1895—State vs A. A. Emmel of Barneveld. Defendant general dealer and sold paris green contrary to law. In Justice court at Dodgeville. Defendant fined \$50. and costs. Paid.

No. 50—July 31, 1895—State vs Evan O. Kaye of New Richmond, St. Croix Co. Complaint, defendant was registered but left store in charge of unregistered clerk who sold drugs and poisons. Case in Justice Court at Hudson. Defendant fined \$50. and costs amounting to \$62. Paid.

No. 51—July 31, 1895—State vs Wright & Brayton, Ripon, Fond du Lac Co. One party only registered, and no other registerman in store. Unregistered man sold drugs and poisons. Case in Justice Court at Fond du Lac and fined \$50. and costs amounting to \$60. Paid.

No. 52—State vs Michael Purcell of Madison, Dane Co. Defendant clerk for A. A. Mayers and sold poisons in absence of registered pharmacist. Jury trial in Justice Court. Defendant fined \$50. and costs. Appeal taken to Circuit Court.

Making a total of eleven cases the past year, in which the law was sustained in eight cases. Total number of cases to date 52, in which the State has been successful in 43. For every case that comes to trial there are five complaints. The Board particularly request that any one knowing of violations of the law, will report the same to them. The receipts and expenses for the year are:

ANNUAL REPORT OF TREASURER FOR 1894, 1895,

RECEIPTS.

1249 Renewals @ \$1.00.....	\$1249.00
302 Renewals @ 50 cents.....	151.00
Old registration.....	43.00
68 Licentiates by examination.....	340.00
89 Assistants by examination.....	445.00
30 rejected.....	80.00
22 By registration.....	55.00
2 Clerk lists.....	1.00
7 Duplicate certificates.....	3.50

 \$2347.50

Cash on hand August 1894.....	839.64	\$3187.14
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EXPENSE

Meetings.....	\$ 641.34
Secretary one year.....	600.00
Office rent and clerk hire.....	100.00
Stationery.....	202.33
Postage.....	131.68
Legislation.....	78.29
Prosecutions.....	268.70
Report of Board, 1894.....	55.97
Advertising.....	33.48
Insurance \$3.60, express 3.63.....	7.23
Telegrams \$3.50, exchange \$1.40.....	4.90

 Total expense.....\$2120.92

Cash on hand.....	1066.22	\$3187.14
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BOARD PROPERTY.

Desk.....	\$ 35.00	
Caligraph No. 3.....	65.00	
Caligraph desk.....	20.00	
Desk.....	5.00	
Seal.....	4.00	
Books and stationery.....	100.00	\$229.00

PHARMACY REGULATIONS.

The board desires to call the attention of all registered pharmacists to some of the important points of the law.

First—That none but registered pharmacists can conduct a drug store or pharmacy; they must be the principals and managers of the store in *all its management*; neither can they allow anyone not registered to sell medicines or poisons, or dispense physicians' pre-

scriptions, except under their *direct* supervision.

(See Supreme Court decision, *State vs. Heineman*, September, 1887).

Second—Sales of poisons can only be made by a proprietor, principal or clerk who is a registered pharmacist.

Third—The certificates of all registered pharmacists must be conspicuously posted in the place of business or pharmacy which they are conducting, or in which they are employed, with the renewal certificate placed in the lower left hand corner, to show to the public that their certificates of registration are in full force and effect, and in case they fail to so post their certificates the law imposes a fine of ten dollars.

NOTE—That as the pharmacy law requires that every drug store in Wisconsin must be under the direct charge of a registered pharmacist of Wisconsin, “Any Assistant Pharmacist (of Wisconsin) shall have the right to act as clerk or salesman in a drug store or pharmacy during the ‘temporary absence’ of the owner or manager.” The Board of Pharmacy construes the words “temporary absence” to mean that the assistant pharmacist may have charge of the store only while the registered pharmacist has gone to his meals or any other like necessary duty requiring no more time than is generally so consumed, and does not mean that the assistant pharmacist can take charge of the drug store or pharmacy for weeks at a time,—the expressed intention of the pharmacy law being to keep every drug store or pharmacy under the immediate charge or supervision of a registered pharmacist during all the time the drug store or pharmacy is open for business.

THE DUTIES OF APPRENTICES.

The board of pharmacy in constructing the duties and privileges of an apprentice, interpret the pharmacy law to mean that they shall in no instance be permitted to act as assistant or registered pharmacist during the absence of the latter from the store or place of business, but may sell drugs or compound prescriptions under the direct personal supervision of a registered pharmacist and at no other time.

That it is the spirit and intention of the pharmacy law to place more competent persons in line for subsequent registration, and is calculated and intended only to afford the apprentice an opportunity to acquire the necessary and contemplated experience.

That the apprentice shall not be considered in any sense to be authorized under the law to exercise the duties and responsibilities of a registered pharmacist, or assistant pharmacist under the law.

RELATING TO THE SALE OF HOMEOPATHIC MEDICINES.

The sale of homeopathic medicines(not proprietary) properly comes under the regulations of the pharmacy law. The sale therefore of any quantity of arsenic, aconite, nux vomica, belladonna and other poisonous preparations enumerated in Section 12 should be sold as herein required.

VERMICIDES CONTAINING POISON.

The sale of "Rough on Rats," or any vermicide containing poisons included in Section 12, is unlawful for any person except a registered pharmacist, to retail for any purpose whatever.

PARIS GREEN

May be sold by general dealers, if put up in packages and labeled "Paris Green—Poison."

EXAMINATIONS.

No examinations can be had except at the regular advertised meetings of the Board. No questions or standing of applicants are given out to anyone except to Secretaries of State Boards.

PERMITS.

The Board has no authority to grant a permit of any kind. A physicians diploma is not recognized as certificate of registration and a physician has no right to sell drugs or poisons or compound prescriptions of any other physician unless registered.

DOMESTIC REMEDIES.

The State Board of Pharmacy has defined the "Usual Domestic Remedies" that may be sold by grocers and general stores under the provision in Section 9, Pharmacy Law, as

Copperas,	}	To be sold as stock remedies only.
Sulphur,		
Saltpetre,		
Rosin,		
Glauber Salts,		
Oil of Turpentine,	}	For washing and soap making purposes only.
Sal Soda,		
Aqua Ammonia,		
Soda Ash,		
Borax,		
Ammonia, carbonate	}	For domestic use only (not medicinal).
Soda, bicarbonate		
Cream of Tartar,	}	For lubricating purposes.
Castor Oil,		

The sale of ordinary drugs and medicines by other than a registered pharmacist is provided for in Section 9, pharmacy law. Such articles as Quinine, Epsom Salts, Castor Oil, Paregoric, Spirits of Nitre, Sulphur, Saltpetre; and all other ordinary articles of drugs

or medicines (not poison) used for medicinal purposes, by general stores if put up in sealed packages, and properly labeled by a registered pharmacist of Wisconsin (the label should have the name of a registered pharmacist thereon, and the words "Registered Pharmacist of Wisconsin, certificate No.—," with proper directions for use thereon). The sale of these articles put up by wholesale druggists or manufacturers not registered pharmacists in Wisconsin is not legal under the Pharmacy Law.

The sale of patent medicines, except those having the name of the contents on the bottle, and manufactured by a registered pharmacist or physician of Wisconsin, is prohibited by the Pharmacy law. The supreme courts have decided that quinine is not a domestic remedy, and the circuit courts have decided time and again that the articles enumerated above are not domestic remedies. The words, "usual domestic remedies" in the pharmacy law, taken in connection with the proviso in the same section of the law for the sale of medicines by other than by registered pharmacists for medicinal use, shows conclusively the distinction made by the law between drugs and medicines for medicinal use, and those for domestic use, making a special distinction between domestic and medicinal, is clearly the intention of the law, and the board so defines its provision.

LIST OF PROSECUTIONS UNDER THE PHARMACY LAW.

Communications may be addressed to E. B. Heimstreet, or Fethers, Jeffris & Field, Attorneys of the Board, Janesville, Wisconsin.

1. March, 1885, Horicon, Dodge Co., case tried at Juneau. Defendant not a Registered Pharmacist and selling drugs and poisons. Fined \$50 and costs. Paid.

2. November 1885, Orford, Rock Co., before Municiple court, Janesville. Change of venue taken and case tried before M. S. Prichard, J. P., Janesville. From him carried to Circuit Court and placed on November term. Case settled, selling out to registered man.

3. November, 1885, Albany, Green Co., tried in Monroe. Defendant not registered and sold drugs and poisons. Fined \$50 and costs.

4. April 1886, Oconomowoc, Waukesha Co. One of the defendants not registered and sold drugs and poisons in the absence of a registered man. Fined \$50 and costs. Paid.

5. June 1886, Eagle, Waukesha Co., registered but kept a drug store with no registered man in charge, Fined \$50 and costs. Paid.

6. August 1886, Alma, Buffalo Co. Defendant allowed drugs and poisons to be sold by person not registered. Fined \$50 and costs. Paid.

7. August 1886, Delavan, Walworth Co., defendant tried at Elkhorn. Registered but left store in charge of unregistered person. Fined \$50 and cost. Paid.

8. January 1887, Deerfield, Dane Co., tried at Madison. Physician not registered, but sold drugs and poisons. Fined \$50 and costs. Paid.

9. January 1887, Janesville, Rock Co. Complaint was that store was left in charge of unregistered person. Verdict for defendants on the grounds that it was not proven that they had sold any poison. Appealed to Circuit Court where it was thrown out at spring term. Ground of complaint unconstitutional, being in name or people of State etc.

10. January 1887, Racine, Racine Co., defendant appeared in court stating he hardly ever left the store, and tried to live up to the law. Defendant paying cost of suit, case dropped.

11. January 1887, Eau Claire, Eau Claire Co. Defendant not registered and no registered person in store. Jury trial in Municipal Court. Defendant fined \$50 and costs. Paid.

12. September 1887, Appleton, Outagamie Co. Defendant not registered and no registered person in charge of the store. Jury trial at Appleton. Jury disagreed. New trial July 6th 1888. jury decided in favor of state. Defendant appealed to Circuit Court. case tried before Judge Meyers. Decision of lower court sustained. Defendant appealed to Supreme Court. In November, 1891 the Supreme Court took up the case and declared the Wisconsin Pharmaceutical Law constitutional, and the defendant paid the costs, in all amounting to something over eight hundred dollars.

13. January 1888, Milwaukee, Milwaukee Co., physician and druggist was registered but would not pay renewal. Case withdrawn, defendant paying renewal and cost of suit.

14. April 1888, Pittsville, Wood Co. No registered person in charge of store. Case tried at Centralia. Judgement for \$50 and costs. Paid.

15. July 1888, Chippewa Falls, Chippewa Co. Jury trial before Judge Hoyt. Defendant registered but left store in charge of a young man not registered. Defense was that the boy had been instructed never to put up prescriptions or sell any poison, and had done so contrary to orders. Verdict for State on ground that the fact of boy being left in store alone gave him charge of same. \$50 and cost. Paid.

16. August 1888, Albany, Green Co. Defendants grocers and sold Paris Green contrary to law. Verdict for State.

17. September 1888, Albany, Green Co. Defendants grocers, sold Paris Green contrary to law. Verdict for State.

18. November 1888, Pittsville, Wood Co. Case was continued, during which time defendant presented proof to the Board that he had not wilfully violated the law. Secretary was directed to drop the case.

19. October 1889, Stoughton, Dane Co., before Judge Keyes, of Madison. Store left with no registered pharmacist in charge. Defendant fined \$50 and costs. Paid.

20. September 1890, St Croix Co. Case same as No. 15. Defendant fined \$50 and costs. Paid.

21. October 1890, at Hurley. Defendants both physicians; but had no registered person in charge of store. Municipal Court, Ashland, Defendants fined \$50 and costs. Paid.

22. January 1891, Milwaukee, Jury trial at Milwaukee. Dr. Williams claimed the stock was his, and not owned by the Peru Chemical Company, and they had no interest in the stock. Case ordered dropped.

23. February 1891, Racine, Racine county, before Justice of the Peace. Defendant was a physician and had no registered man in store. He claimed that the stock did not belong to him, and second, that the clerk had been told never to sell poisons. \$50 fine and costs. Paid.

24. April 25, 1891, Clinton, Rock county. Municipal Court; Janesville. Defendant was not registered and had no registered man in store at time prescriptions were compounded. Fined \$50 and costs. Paid.

25. May 1891, Kaukauna, Outagamie county, defendants had no registered pharmacist in store. Case tried at Appleton. Defendants fined \$50 and costs. Paid.

26. October 7, 1891, Tomah. Case called in Circuit Court. District Attorney had failed to file paper of appeal and case was discharged.

27. December 15, 1891, Pittsfield, Wood county. Case called at Marshfield but dropped, defendant paying costs and expenses.

28. January 2, 1892, Weyauwega. Defendants left store in charge of boy not registered. Fined \$50 and costs. Paid.

29. October 1892, Superior, Douglass county. Defendants physicians but not registered; no registered man in store. Fined \$50 and costs. Paid.

30. March 1, 1893, Unity, Marathon county. Complaint, keeping a drug store with no registered pharmacist in charge. Case tried at Wausau, and defendant fined \$50 and costs. Paid.

31. May 27, 1893, West Superior. Defendant not registered, but made sales of poisons in absence of registered pharmacist. Fined \$50 and costs. Paid.

32. June 28, 1892, Iron River, Bayfield county. Defendant proprietor of a drug store at Iron River but not registered. Case tried at Washburn. Defendant fined \$50 and costs. Paid.

33. August, 1893, Iron River, Bayfield county. Proprietor not registered and no registered person in store. Case tried at Washburn, defendant fined \$50 and costs.

34. October 1893, Milwaukee. Proprietor registered but ran a branch store with no registered person in charge. Tried at Milwaukee. Defendant fined \$50 and costs. Paid.

35. November 1893, Milwaukee. Proprietors of store not registered and assistant pharmacist only in charge of store. Fined \$50 and costs. Paid.

36. January 1894, Milwaukee. Defendant registered but allowed apprentice to sell drugs, no registered person being in store. Fined \$50 and costs. Paid.

37. Milwaukee. Defendant in charge of store but held assistant's certificate only. After case was in courts defendant applied for and passed the examination as licentiate. The case was then dropped, defendant paying costs of suit to date, \$55.25.

38 July, 1894, Milwaukee, Municipal Court. Defendant arrested for obtaining certificate by false representation, allowing another person to take examination in his name. Certificate revoked and defendant fined \$100 and costs, in all \$142. Paid.

39. July 1894, Marinette. Defendant not registered and no registered person in store. Justice Court. Defendant fined \$50 and costs. Paid.

40. August 1894. Milwaukee, Justice Court. Defendant hardware dealer and sold Paris Green in bulk and not labeled. Fined \$50 and costs. Paid.

41. August 1894, Berlin. Defendants kept a general store and sold Paris Green not labeled. Fined \$50 and costs.

42. October, 1894, Ripon, Fond du Lac county. Defendant physician but not registered. Fined \$50 and costs. Paid.

43. October, 1894, Ripon, Fond du Lac county. Defendant clerk for physician, No. 42, not registered. Fined \$50 and costs.

44. August, 1894, Princeton, Green Lake county. Defendants grocers and sold Paris Green. Fined \$50 and costs. Appealed to Circuit Court,

45. January, 1895, Fond du Lac. Defendants registered but left store with unregistered clerk. Fined \$50 and costs. Paid.

46. January, 1895, Fond du Lac. Defendant clerk of above parties. Fined \$50 and costs.

47. January, 1895, Circuit Court, Dartford, Green Lake Co., appeal in case No. 44. Verdict for defendants as no evidence was in to show that it was not sold in one pound and one-half pound packages.

48. June, 1895, Madison. Defendant grocer with drug department. Was registered but left store with no registered person in charge. Tried in Justice Court. Verdict for defendant. Appealed to Circuit Court.

49. Clerk of above. Fined \$50. Appealed to Circuit Court.

50. June, 1895, Barneveld, Iowa county. Defendant general dealer and sold Paris Green contrary to law. Justice Court at Dodgeville. Defendant fined \$50 and costs. Paid.

51. July, 1895, New Richmond, St. Croix county. Defendant registered but left store with clerk not registered. Case in Justice Court at Hudson. Defendant fined \$50 and costs. Paid.

52. July, 1895, Ripon, Fond du Lac county. Partners, one registered. Store left with unregistered partner. Fined \$50 and costs. Paid.

53. August, 1895, Juneau, Dodge county. Defendant a pharmacist but not registered in Wis. Before date of trial came to examination and received licentiate certificate. Case dropped, defendant paying costs.

54. August, 1895, Muscoda, Grant county. Defendant kept a drug store but was not registered and no registered person in store. Fined \$50 and costs.

55. November, 1895, Circuit Court, Madison. Case No. 48 taken up on appeal, and after testimony was all in, the Judge directed the Jury to give a verdict for the State, stating that it was clearly the intent of the law that none but competent persons should be allowed to sell drugs and poisons. Jury gave verdict for State for \$50 and all costs in both courts, amounting to \$202.70.

56. Circuit Court, Madison. Case No. 49 taken up on appeal. Jury was directed by the Judge to give same verdict as in case No. 55 and defendant was fined \$50 and all costs in both courts.

WISCONSIN STATE BOARD OF PHARMACY.

EXAMINATION IN PHARMACY.

SHEBOYGAN, Wis., August 16, 1895.

.....Candidate.

Candidates should be particular to answer fully each question in the order named, being careful not to omit answering the several queries comprised in each number. Omitting to answer any part of a question will detract from the average. This paper to be returned with the answers.

PHARMACY.

1. What is the official name of solution? What solvents are employed in preparing solutions?
2. How many grains of Morphia Sulphate in one ounce of ten per cent solution? How would you prepare (giving correct quantities) an eight ounce mixture containing 50 per cent of Cod Liver Oil?
3. What is the official name of Seidlitz Powders? Give ingre-

dients and quantities in making them.

4. What proportion of mercury in a, Pil Hydrarg; b, Ungt Hydrarg?

5. What is dialysis? Give example.

6. State the freezing and boiling point of water in the Fahrenheit and Centrigrade thermometer. How would you convert Centigrade to Fahrenheit?

7. Name the best solvent for Boric Acid, Camphor, Tannic Acid, Phosphorus, Iodoform.

8. What is the percentage strength of dilute Hydrochloric Acid; Sulphuric Acid; Nitric Acid; Hydrocyanic Acid?

9. Give three samples of Incompatibles.

10. Criticise; and if necessary correct the following prescriptions, to-wit:

Morphia Sulphate gr x	Quinia Sulph gr xx
Atropia Sulph gr ½	Ac Sulph dil q. s.
M. ft. chart No. x	Sod Salicyl ʒ i
S. One every hour.	Aqua q. s. ad ʒ ii Ft. Sol.
	S. As directed.

BOTANY AND MATERIA MEDICA.

11. What is Pyroxylin? How is it made and into what official preparations does it enter?

12. What is the best menstruum for extracting, *a* Opium; *b* Sena; *c* Wild Cherry; *d* Benzoin; *e* Marshmallow?

13. What is the difference between fixed and essential oils? Name three of each.

14. What part of the plant is used in the following: *a* Garlic; *b* Marshmallow; *c* Belladonna; *d* Peppermint; *e* Saffron.

15. Wild Cherry. Natural odor, habitat, part used, to what does it owe its medical virtues. Name official preparations.

16. Give dose and antidote of each of the following: Iodine, Strychnia, Nitr Silver, Tr Aconite, Sugar of Lead.

17. Name a drug from each of the following natural orders: Compositæ, Coniferæ, Umbelliferæ, Solonaceæ, Rubiaceæ.

18. Cubebæ. What are they? Where do they grow? What do they contain? State medicinal properties.

19. Which of the following is a resin, gum resin, oleo resin, carbohydrate, hydrocarbon, Copaiva, Myrrhæ, Mastic, Benzine, Starch.

20. Give characteristics of the natural order Umbelliferæ. Give three official drugs obtained from them.

CHEMISTRY.

21. What acid do we obtain from Cream of Tartar? What is the name of the crude Cream of Tartar?

22. Give tests for the purity of H_2O .
23. What is the chemical and physical difference of red and yellow oxide of mercury?
24. Write a formula of a sulphite, sulphate, sulphide.
25. What are Halogens? Name them.
26. Complete the equations $a \ 2NaCl + x \ H_2SO_4 = b \ H_2O + xK-$
27. How would you obtain Hydrogen? Write out formula.
28. Give the formula of Calomel and Corrosive Sublimate. Give a test for each, and state how you would detect if Calomel contained traces of Corrosive Sublimate.
29. Ether. What is it? How is it made? What precautions are necessary in handling it?
30. Chlorinated Lime. How is it made, and how much chlorine should it contain?

SAMPLES USED AT MEETING

- | | |
|----------------------------|-----------------------------|
| 1. Pulvis Glycyrrhizæ. | 16. Linimentum Camphoræ. |
| 2. Hydrastis. | 17. Aqua Menthæ Viridis. |
| 3. Lavendula. | 18. Syrupus Scillæ. |
| 4. Zingiber. | 19. Syrupus Senegæ. |
| 5. Senna. | 20. Tr. Cubebæ. |
| 6. Illicium. | 21. Ceratum Resinæ. |
| 7. Buchu. | 22. Sodii Hyposulphitis. |
| 8. Acacia. | 23. Acetanilid. |
| 9. Piper. | 24. Sapo Viridis. |
| 10. Cinchona. [tus. | 25. Saccharum Lactis. |
| 11. Pulvis Jalapæ Composi- | 26. Potassii Chloras. |
| 12. Acidum Benzoicum. | 27. Hydrargyrum cum Creta. |
| 13. Sodii Bromidum. | 28. Potassii Nitræ. |
| 14. Tinctura Cinchonæ. | 29. Ziuci Sulphas. |
| 15. Spiritus Lavendulæ. | 30. Potassii Ferrocyanidum. |

PHARMACY LAWS OF WISCONSIN.

Chapter 167, Laws of 1882, as Amended in 1885, 1887 and 1895.

AN ACT to amend chapter 167, of the laws of 1882, as amended by chapter 146, of the laws of 1885, and chapter 460, of the laws of 1887, relating to the practicing of pharmacy, the licensing of persons to carry on such practice and the sale of poisons in the state of Wisconsin.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. Chapter 167, of the laws of 1882, as amended by chapter 146, of the laws of 1885, and as amended by chapter 460, of the laws of 1887, is hereby amended so as to read when amended as follows: Section 1. There is hereby established a board of pharmacy of the State of Wisconsin. Such board shall consist of five resident pharmacists. The term of office of the members of said board shall be five years each, and until their successors have been duly appointed and qualified, so ordered that the term of one member of said board shall expire each year. Death, removal from state, or resignation of a member, shall constitute a vacancy, which shall be filled for the remainder of the term by appointment as in the case of an expiration. Said board shall have the power specified in this act.

SEC. 2. The Wisconsin Pharmaceutical Association shall annually elect three pharmacists for recommendation to the governor of the state. Upon the expiration of the term of office of any member of the board of pharmacy, or in case of vacancy on said board, the governor shall appoint a successor, or fill such vacancy by appointing a person who shall have been at some time recommended by said association.

SEC. 3. The said board shall hold an annual meeting in the month of March, the time and place of which shall be designated by the president and secretary of the board. At such annual meeting said board shall elect a president, secretary and treasurer, who shall hold office until the next annual meeting, and until their successors are elected and qualified; provided that the board may ap-

point as secretary and treasurer, some person not a member of the board. The said board shall have power to make by-laws for the government of the board, and for the proper execution of its duties. The board shall hold meetings for the examination of applicants for registration as pharmacists and assistant pharmacists, who shall be known as "Registered Pharmacists," and "Registered Assistant Pharmacists." Said meetings shall be held at least once in three months and any business may be transacted at such meetings which pertain to the duties of the board. Thirty days public notice of a meeting, when held for the purpose of examination, shall be given by said board. The board shall examine all applicants for registration when application shall be made in accordance with the by-laws of this board and with this act, and when applicants shall be found competent, they shall be granted certificates of registration. The board shall grant certificates of registration and register such persons as may be entitled to the same under this act. They shall cause the prosecution of all persons violating any of the provisions of this act; shall report annually to the governor, and to the Wisconsin Pharmaceutical Association upon the condition of pharmacy in this state, which report shall also contain a record of the proceedings of the board for the year preceeding, the receipts and disbursements of the board, the names of all persons registered as pharmacists or assistant pharmacists. Three members of said board shall constitute a quorum. The secretary of said board shall keep a record of the proceedings of the board and shall keep a book of registration in which shall be entered the names and places of business of all persons registered under this act, with the reason justifying their registration. Such books shall be prima facie evidence of what persons are registered pharmacists and registered assistant pharmacists in this state. The secretary shall receive a salary to be determined by the board, and his traveling and other expenses incurred in the performance of his official duties, and shall give such bonds as the board shall from time to time direct. The other members shall receive the sum of five dollars for each day actually engaged in such service, with the necessary expenses incurred in attending meetings of the board. Such salary, compensation, expenses and other disbursements by the board shall be paid from the fees received by the board under this act, and no part thereof shall be paid out of the state treasury. All moneys received by the board in excess of the disbursements made by the board shall be held by the treasurer as a fund from which to pay the expenses of the board.

SEC. 4. All persons now registered as pharmacists by the board shall be entitled to practice their profession in accordance

with this act. The board shall hereafter issue certificates of registration, and register as pharmacists, those persons who shall be twenty-one years of age or over, and shall have had five years practical experience in a drug store, wherein prescriptions of medical practitioners are compounded, and shall sustain a satisfactory examination before the board, and shall comply with the provisions of this act, and graduates of the several courses of the department of pharmacy of the University of Wisconsin, and of other universities and colleges giving like courses shall be entitled to certificates of registration upon proof of two years' instead of five years' practical experience in a drug store, and upon sustaining like examinations and complying with the other provisions of this act. All of which facts shall be made to appear to the satisfaction of the board. Such persons as are now registered, or may hereafter be registered under this act, shall be entitled to practice their profession under such registration until the expiration of the time for the renewal thereof under this act, and upon failure to renew such registration, as herein provided, such registration shall cease and be invalid.

SEC. 5. Every registered pharmacist who wishes to continue the practice of his profession, shall annually, during the time he shall continue such practice, on such date as the board may determine, apply for the renewal of his registration and pay the fee herein provided for such renewal. If any registered pharmacist fails to procure a certificate of renewal for sixty days after the secretary of the board shall have mailed him a notice a second time of the expiration of his registration, he shall cease to be a registered pharmacist within the meaning of this act. Such person to again become a registered pharmacist shall proceed as required for an original registration.

SEC. 6. Said board shall issue a certificate and register such persons as registered assistant pharmacists as shall have reached the age of eighteen years and have had two years practical experience in drug stores, where prescriptions of medical practitioners are compounded, and shall pass a satisfactory examination before said board, and shall comply with the provisions of this act; all of which facts shall be made to appear to the satisfaction of the board. Every registered assistant pharmacist who desires to continue the practice of pharmacy, as in this act provided, shall annually, during the time he shall continue such practice, on such date as the board may determine, apply for a renewal of his registration and pay the fee herein provided for such renewal. If any registered assistant pharmacist shall fail to take out a certificate of renewal for sixty days after the secretary of the board shall have mailed

him a second notice of the expiration of his registration, he shall cease to be a registered assistant pharmacist, within the meaning of this act. Such persons to again become registered assistant pharmacists, shall proceed as required for original registration.

SEC. 7. Every certificate of registration and the renewal thereof shall be conspicuously exposed in the pharmacy in which the pharmacist, to whom it is issued, practices. And if any registered pharmacist or any registered assistant pharmacist shall fail or neglect to so conspicuously expose such certificate, or renewal, he shall forfeit ten dollars for each and every such failure or neglect.

SEC. 8. Every person applying for registration shall pay the board a fee of five dollars at the time of making the application, and if the board shall for any reason refuse to register the applicant, three dollars thereof shall be refunded. Every person applying for renewal of a certificate of registration shall pay the board at the time of making the application, such fee as may be fixed by the board, which fee shall not exceed the sum of two dollars.

SEC. 9. It shall be unlawful for any person to retail, compound or dispense drugs, medicines or poisons, except Paris Green put up in packages, labeled "Paris Green Poison," or to institute or conduct any pharmacy, store or shop for retailing, compounding or dispensing drugs, medicines or poisons in any city, town or village, having five hundred or more inhabitants, unless such person shall be a registered pharmacist, or shall employ and place in charge of such pharmacy, store or shop a registered pharmacist. And in case any person shall so retail, compound or dispense drugs, medicines or poison, or shall so institute or conduct a pharmacy, store or shop for retailing, compounding or dispensing drugs, medicines or poisons, he shall forfeit fifty dollars for each such offense. Any person who shall permit the compounding or dispensing of prescriptions, or the vending of drugs, medicines or poisons, in his store or place of business in a town, city or village, having five hundred or more inhabitants, except by a registered pharmacist, shall forfeit fifty dollars for each such offense. It shall be unlawful for any person to retail, compound or dispense drugs, medicines or poisons or to institute or conduct any pharmacy, store or shop for retailing, compounding or dispensing drugs, medicines or poisons in any town, city or village having less than five hundred inhabitants, unless such person shall be a registered pharmacist or registered assistant pharmacist, or shall employ and place in charge of such pharmacy, store or shop, a registered pharmacist or registered assistant pharmacist, and in case any person shall so retail, compound or dispense drugs, medicines or poisons, or shall institute or conduct any pharmacy, store or shop for retailing com-

pounding or dispensing drugs, medicines or poisons, he shall forfeit fifty dollars for each such offense. Any person who shall permit the compounding or dispensing of prescriptions or the vending of drugs, medicines or poisons, in his store or place of business in a town, city or village having less than five hundred inhabitants, except by registered pharmacist or a registered assistant pharmacist, shall forfeit fifty dollars for each such offense; provided that under the personal supervision of a registered pharmacist, a registered assistant pharmacist may compound prescriptions and vend drugs, medicines or poisons, without such forfeiture being incurred: and provided, that nothing herein shall be construed to in any manner interfere with any physician in regular practice from dispensing his own medicines or preventing him supplying his patients with such articles as may seem to him proper, or interfere with the making and vending of proprietary medicines in sealed packages with the name of the contents, the directions for using, and the pharmacist registered in this state or physician by whom prepared and compounded, thereon, nor with the sale of the usual domestic remedies, or with the exclusive wholesale business of any dealer.

SEC. 10. Any person who shall willfully make a fraudulent statement or representation to procure registration for himself, or for any other person, under this act, or who shall violate any provisions of this act for which a specific penalty or forfeiture is not provided, shall for each and every such offense forfeit the sum of fifty dollars.

SEC. 11. Every owner or conductor of a drug store shall be responsible for the quality of all drugs, chemicals or medicines, sold or dispensed by him, except those sold in the original package of the manufacturer, and except those articles known as patent or proprietary medicines. And should any such owner or conductor of a store intentionally and fraudulently adulterate, or cause to be adulterated, any drugs, chemicals or medical preparations sold in such store, he shall, for any and every such offense, forfeit the sum of one hundred dollars, and if such person shall be a registered pharmacist or registered assistant pharmacist, his registration and certificate of registration may be, by said board, revoked and annulled; whereupon such person shall cease to be a registered pharmacist or registered assistant pharmacist.

SEC. 12. No person shall sell or retail any poison commonly recognized as such, except Paris Green put up in packages and labeled "Paris Green, Poison," and especially aconite, arsenic and its preparations, belladonna, biniodide of mercury, carbolic acid, chloral hydrate, chloroform, conium, corrosive sublimate, creosote,

croton oil, cyanide of potassium, digitalis, hydrocyanic acid, morphine, nux vomica, oil of savin, oil of tansy, oil of bitter almonds, oil of cloves, oxalic acid, opium and preparations of opium, phosphorus, sulphuric ether, strychnine, sugar of lead, 'sulphate of zinc, white precipitate, red precipitate, or any mixture containing enough of any of said poisons or any combination of them sufficient to kill a person taking the same, without affixing to the box, bottle, vessel or package containing the same, and to the wrapper or cover thereof, a label bearing the name "poison" distinctly shown, together with the name and place of business of the seller. And every person who shall sell or retail any such poison, shall keep in his place of business a book, in which shall be entered an accurate record of the sale of all poisons; such record shall contain the amount purchased, the date, for what purpose purchased and the buyer's name and address. This record shall be at all times, during ordinary business hours, subject to the inspection of the district attorney of the county in which such store is located, or of any authorized agent of said board. Any person failing or neglecting to comply with any of the provisions of this section shall be guilty of a misdemeanor, and upon conviction be punished by a fine not exceeding fifty nor less than five dollars.

SEC. 13. All actions for the recovery of the several forfeitures or penalties prescribed in this act, may be instituted in any court having jurisdiction thereof, by any member of the board, and the members of said board are specially directed to institute such action. It shall be the duty of the district attorney of the county wherein such forfeitures or penalties are incurred, to prosecute all persons incurring any forfeiture or penalty when notified of the same by said board or any officer or agent thereof. Upon complaint made to any justice of the peace by any member of said board, showing that forfeiture has been incurred under this act, and that said justice of the peace has jurisdiction of an action therefor, such justice of the peace shall issue process thereon, as provided by statute, for the collection of forfeitures.

SEC. 14. The Board of Pharmacy of the State of Wisconsin, as at present constituted, shall continue with all the powers and duties with which the board is invested by this act. The present members of said board shall hold their office for the term for which they have been heretofore appointed, respectfully, as designated in their appointment. The present officers of said board shall hold their respective offices until the expiration of the time for which they have been elected. The rules, regulations, by-laws and act of said board shall continue in force and effect.

SEC. 15. All acts or provisions regulating the practice of

pharmacy and the sale of poisons within this state, enacted prior to the passage of this act, are hereby repealed.

SEC. 16. This act shall take effect and be in force from and after its passage and publication.

Approved April 15, 1895.

Chapter 296, Laws of 1885, Amended.

RELATING TO THE SALE OF LIQUORS BY PHARMACISTS.

SEC. 2 as amended by chapter 404, laws of 1887. There is hereby enacted a new section to be known as section 1548a of the revised statutes, which shall read as follows: Section 154-a. The town boards, village boards, and common councils of the respective towns, villages and cities in this state, upon the written application of any registered pharmacist, may grant to such registered pharmacist as they may deem proper a permit to sell strong, spirituous and ardent liquors, in quantities less than one gallon, for medicinal, mechanical or scientific purposes only, and not to be drunk on the premises. The sum to be paid for such permit shall be ten dollars, and such permit shall be granted and issued in the same manner and terminate at the same time as the license provided in the preceding section, except that it shall not be necessary for any such registered pharmacist to furnish the bond required by section 1549, of the revised statutes; provided, that in case any town board, village board or common council shall refuse to grant such permit, any registered pharmacist may sell such strong spirituous and ardent liquors, for medicinal purposes only, on the written prescription for each sale, of a practicing physician, competent to testify in any court in this state in a professional capacity, as provided by section 1436 of the revised statutes. It shall be the duty of every pharmacist to whom a permit is issued to keep a book, in which he shall enter the date of every sale made by him of any such liquors, the name of the person to whom sold, and the kind and quantity of and purpose for which such liquors are sold; and such book shall at all times be open to the inspection of the authorities granting such permit. It shall be the duty of every such pharmacist, on the third Tuesday of April in each year, to file with the clerk of the city, village or town in which the permit is granted, a verified copy of all the entries made by him in such book, as he is required by this section to keep.

SEC. 5. There is hereby enacted a new section to be known as section 1550a of the revised statutes, which shall read as follows: Section 1550a. Any person who shall, for the purpose of inducing

the sale of liquors by any registered pharmacist, holding a permit therefor, for any other use than medicinal, mechanical or scientific purposes, make any false statement or representation to such pharmacist, or any clerk or employe of such pharmacist, regarding the use for which such liquor is bought, and thereby induce such sale to be made in violation of law, or any registered pharmacist holding a permit under this charter, who shall neglect or refuse to comply with any of the requirements of this chapter shall be guilty of a misdemeanor and on conviction thereof, shall be punished therefor by a fine of not less than ten dollars, or more than forty dollars, besides the costs of suit; and in case of a second or any subsequent conviction of the same person, the punishment shall be a fine of not less than forty dollars or more than one hundred dollars, besides the cost of the suit; or by imprisonment, in the county jail of the proper county, not less than thirty days or more than three months; and in case of punishment by fine, such person shall, unless the fine and costs be paid forthwith, be committed to the county jail of the proper county until such fine and costs are paid, or until discharged by due course of law.

NOTE—Liquor permits can be issued to registered pharmacists only and not to firm. In case a proprietor of a drug store is not registered, the permit must be made out in the name of the registered man in charge of the pharmacy. Pharmacists should attend to this and see that none but registered men receive certificates.

LIST OF REGISTERED PHARMACISTS

IN THE STATE OF WISCONSIN

And Number of Certificates, August 1895.

NOTE. G—Graduate; R—Registered; L—Licentiate; M—Minor; A—Assistant.

Pharmacists are requested to report any errors or omissions in the list, and to report any change in their address. If you know of anyone who is in the drug business, proprietor or clerk, whose name is not on this list, please report to the secretary of the Board.

ABLEMAN—Sauk Co.

786 Fey, Adam.....R 787 Goedecke, Louis.....R

AHNAPEE—Kewaunee Co.

38 Doyen, Silas I.....R 1471 Dudley, James.....L

ALBION—Dane Co.

827 Collins, T. B.....R

ALMA—Buffalo Co.

419 Hunner, Louis P.....R 1221 Syverson, G. F.....G
1383 Meickleson, H. C.....G 301 Gobar, G. G.....A
299 Agnew, Edw. S.....A

ALMA CENTER—Jackson Co.

1407 Zimmerman, R. E.....L 69 Bates, R. J.M
645 Breakey, Geo. M.A

ALBANY—Green Co.

64 Bartlett, Geo. W.....R 1688 Roberts, Wm. D.....G

ALTOONA—Eau Claire Co.

13 Window, Arthur.....R

AMHERST—Portage Co.

195 Starks, Edgar.....R 256 Guernsey, A. H.....R
744 Smith, E. RA

AMERY—Polk Co.

1684 Evander, Gustav.....L

ANTIGO—Langlade Co.

1023 Leutscher, R. J.....L	1589 Williams, E. E.....G
1626 Stephany, Jos. K.....G	1771 Lonergan, M. D.....L

APOLLONIA—Chippewa Co.

936 Hurlburt, O. S.....R

APPLETON—Outagamie Co.

87 Cook, J. H.....R	571 Montgomery, W. F.....R
610 Kuehmsted, Otto.....R	681 Foster, Henry A.....R
730 Kamps, J. H.....L	756 Hawes, J. A.....R
757 Little, C. S.....R	771 Berg, Geo. W.....R
822 Greulich, Jos.....R	998 Schutz, G. J.....L
1338 Cook, Harry W.....L	1384 Golmgefsky, Chas. E.....G
1542 Popp, Godfrey G.....L	1585 Weimar, Wm.....L
1621 Mead, John L.....G	1630 Sacksteder, Edw. W.....L
1724 Roberts, Geo. S.....L	233 Younger, Otto E.....A
606 Loetz, Frank A.....A	1663 Hocking, B. H.....L

ARCADIA—Trempealeau Co.

1099 Maurer, Emil.....L	1800 Richtmann, Wm. O.....G
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ARENA—Iowa Co.

196 Jones, Wm. H.....R	711 McCutchin, A. T.....A
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ARGYLE—LaFayette Co.

506 Hansen, C. A.....R	1393 Gerritt, Frank A.....L
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ASHLAND—Ashland Co.

167 Ellis, Edwin.....R	377 Puffer, John D.....R
452 Gillie, Herman G.....R	606 Wilson, Frank S.....R
842 Weed, H. D.....R	996 Warner, Louis A.....L
1345 Warner, A. F.....L	1582 Crabb, Chas. J.....L
1598 Woodhead, Jos. V.....L	1419 Moureau, R.....G
1854 Hoppenyan, E. J.....L	92 Puffer, Mary L.....A
180 Moore, Chas. M.....A	499 Giese, Edw.....A
751 Beil, Wm. P.....A	752 Ihk, Otto W.....A

AUGUSTA—Eau Claire Co.

23 Ryall, E. C.....R	780 Rundlitt, J. R.....R
1685 Werner, C. B.....L	773 Livesey, Chas.....A

BARABOO—Sauk Co.

200 Donovan, J. B.....R	291 Whitman, Jos. H.....R
292 Whitman, Chas. W.....R	293 Whitman, Frank.....R
383 Fisher, A. F.....R	1046 Fisher, Herman A.....L
1156 Evenson, Chas. H.....L	1193 Fisher, Ernst A.....L
1285 Walker, Fred G.....L	696 Church, Samuel.....A
733 Yahn, Chas. S.....A	734 Melzl, Edw. W.....A

BANGOR—La Crosse Co.

213 Evans, R. RR 1574 Bosshard, Wm. E.....L

BARRON—Barron Co.

744 Brandt, W. H.....R

BAYFIELD—Bayfield Co.

222 Tate, AndrewR 1575 Hellweg, Lester A.....L

593 Falk, Charlotte.....A 661 Hellweg, Leon A.A

BALDWIN—St. Croix Co.

361 Haarlow, W.....R 370 Sangestad, O. A.....R

1862 Evans, Walter H.....L

BIRNAMWOOD—Shawano Co.

1202 Petty, John C.....L

BEAVER DAM—Dodge Co.

7 Beule, Peter.....R 1277 Zimmerman, A. A.....L

1348 Hildebrandt, Fred.....G 1515 Chandler, W. D.....L

1558 Schutte, Herman A.....G 1627 Hughes, Harry JG

1782 Helbing, Chas WG

BELMONT—La Fayette Co.

829 Minor, Orrin E.....R 864 Garden, Wm. A.....R

1001 Brown, R. W.....R

BELOIT—Rock Co.

135 Smith, C. A.....R 352 Smith, E. RR

500 Emerson, C. AR 1125 Smith, C. O.....L

1207 Foster, Frank SL 1242 Collyer, B. BG

1447 Pollock, D. H.....L 1805 Robinson, Harry A.....L

1851 Walters, John W.....L 330 Van Wart, Frank.....A

740 Tobin, Joseph H.....A

BELLEVILLE—Dane Co.

398 Williams, W. T.....R

BERLIN—Green Lake Co.

17 Britton, C. HR 140 Slater, John W.....R

491 Brown, J. RR 1331 Dcdson, Chas. M.L

1552 Jones, Alfred T.....L 443 Soik, Leonard H.....A

675 Kolpin, Emil E.....A 717 Lambrecht, Fred WA

BLOOMINGTON—Grant Co.

83 Holford, L. D.....R

BLOOMER—Chippewa Co.

748 Hathaway, J. RR 1042 Brown, Benjamin.....L

BLACK RIVER FALLS—Jackson Co.

138 Bryant, E. P.....R 523 Cole, F. W.....R

524 Cole, J. W.....R 1031 Noble, Fred S.....L

BLANCHARDVILLE—La Fayette Co.

1453 Schee, JohnG 334 Mc Kellar, ArchibaldA

BLUE MOUND—Dane Co.

206 Bancroft, H. V.....A

BLOOM CITY—Richland Co.

662 Shambaugh, Adam.....R

BOYD—Chippewa Co.

44 Taylor, B. E.....R

BOSCOBELL—Grant Co.

28 Favor, Hiram W.....R 198 Pittman, Matt BR

457 Dyer, Geo. W.....R 30 Pittman, Wm. HA

759 Mutschmann, Chas.....A

BRANDON—Fond du Lac Co.

1171 Wardrobe, W. G.....L

BROOKLYN—Green Co.

188 Ellis, A. G.....R

BRODHEAD—Green Co.

289 Broughton, John A.....R 663 Lyons, E. M.....R

667 Towne, L. A.....R 700 Clarke, Henry P.....R

733 Towne, L. ER 754 Stair, Henry.....R

970 Taylor, D. W. H.....L

BRILLION—Calumet Co.

1577 Andrews, Dale.....L

BROWNTOWN—Green Co.

317 Kelly, Chas. AA 651 Trickle, Chas. W.....A

BURLINGTON—Racine Co.

240 Denniston, Geo. C.....R 326 Prasch, M. G.....R

327 Prasch, F. J.....R 1432 Reinhardy, Simon M.....L

605 Kretlow, Frank EA 720 Germann, Alphonso F.....A

BUTTERNUT—Ashland Co.

465 Baldwin, Geo. E.....A 652 Hayden, John J.....A

BLACK EARTH—Dane Co.

1669 Mann, John FL 694 Thomas, Thomas P.....A

BLAIR—Trempealeau Co.

1710 Anderson, Oscar W.....G 665 Bersing, Nicholas E.....A

689 Vold, John H.....A

CAMBRIA—Columbia Co.

61 Evans, Enoch.....R 1500 Williams, W. E.....L

1541 Roberts, John E.....L 1847 Rowlands, Robert J.....L

CASSVILLE—Grant Co.

66 Grimm, Aloys.....R

CAMPBELLSPORT—Fond du Lac Co.

103 Durand, Platt.....R

CAMBRIDGE—Dane Co.

443 Bilstad, O.....R

CASCADE—Sheboygan Co.

561 Bartlett, L. C.....R

CADOTT—Chippewa Co.

679 Watson, Clark.....R 1203 Young, L. M.....L

CASHTON—Monroe Co.

350 Dumez, A. A.....R 1339 Gaines, E. E.....L

CEDARBURG—Ozaukee Co.

24 Boclo, Hugo.....R 668 Hartwig, T.....R
1417 Schiessle, Alfons.....G

CENTRALIA—Wood Co.

69 Worthington, R. C.....R 270 Hill, Geo. M.....R
1843 Otto, August C.....L

CHILTON—Calumet Co.

153 Rollman, Henry.....R 1774 Hipke, A. S.....L

CHASEBURG—Vernon Co.

731 Hoyt, J. W.....R

CHIPPEWA FALLS—Chippewa Co.

272 Stapleton, L. W.....R 273 Goddard, H. J.....R
915 Chisholm, D.....R 1033 Collette, Urgel.....R
1040 Riester, Edw.....L 1513 Nolte, Joseph.....L
1872 Fowler, Chas. T.....L 345 Watson, Frank.....A
11 Beauchene, J. A.....A 579 Dukelow, Albert C.....A
723 Smith, Edw. A.....A

CHETEK—Barron Co.

1493 Dettloff, Otto C.....L

CLEAR LAKE—Polk Co.

116 Johnson, W, R, K.....R 1864 Saxton, John C.....L
279 Briggs, Albert M.....A

CLINTONVILLE—Waupaca Co.

233 Meilike, Hasso A.....R 702 Sedgewick, F. A.....R
707 Gansen, Chas.....R 1758 Kalmes, John.....L
95 Elwers, Wm.....A 237 Willmarth, A. W.....A

CLINTON JUNCTION—Rock Co.

11 Cheever, R. W.R 165 Woodward, O. L.....R
532 Covert, Geo.....R 638 Simmons, S. J.....R
639 Hartshorn, W. I.....R 1045 Inman, E. C.....L
1837 Hofert, Herman C.....L 28 Gilmore, O. C.....A
775 Rustad, Henry C.....A 1581 Cornwell, E. H.....L

COLBY—Marathon Co.

85 Wilms, B. A.....R 1360 Sommer, Richard.....G
729 Elvis, Geo. H.....A

COLUMBUS—Columbia Co.

495 Williams, John.....R 519 Swarthout, John.....R
703 Quickenden, JamesR 1647 Jones, John A.L
1649 Lemcke, Henry G.....L

COOKSVILLE—Rock Co.

7 Robertson, John G....M

CRANDON—Forest Co.

321 Masbaum, John.....K

CROSS PLAINS—Iowa Co.

208 Rossbach, Mrs. G. M A

CUMBERLAND—Barron Co.

896 Fuller, J. F..... R 1458 Ponkey, H. HL

CECIL—Shawano Co.

505 Schmidt, Wm. B.....A

COLFAX—Dunn Co.

1369 Knorr, R. EL

CUDAHY—Milwaukee Co.

1656 O'Dwyer, GeoL

CUBA—Grant Co.

745 Florine, Frank A.....A

DARLINGTON—La Fayette Co.

764 Van Wagenen, H.....R 784 Van Wegenen, E.....R
855 Swift, John V.....R 1427 Ward, Geo.....L
1673 Hooper, Edgar S.....L 362 Swift, Frank C.A

DARIEN—Walworth Co.

118 Williams, Deloss.R 280 Young, Riley S.A

DARTFORD—Green Lake Co.

141 Wheeler, J. HR 145 Howard, A. Z.....A
373 Waters, Frank R..... A

DAYTON—Green Co.

70 Cunningham, J. P.....M

DANE—Dane Co.

72 O'Dwyer, Michael... M

DALLAS—Barron Co.

936 Hurlburt, O. S.....R

DEERFIELD—Dane Co.

588 Britson, John O.....A 627 Sattler, John M.....A

DELAVER—Walworth Co.

57 Camps, J. H.....R	232 Jackson, S. L.....R
238 Hollister, K. N.....R	1009 Hackley, Wm. D.....L
1288 Smith, Will.....L	1375 Fernholz, Wm. F.....L

DELAFIELD—Waukesha, Wis.

468 Kunz, W. E.....R	Kilmer, John.....M
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DE SOTO, Vernon Co.

572 Rogers, Jas. H.....R	98 Ewers, Olando.....A
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DE PERE—Brown Co.

635 Wheeler, H. J.....R	609 Lange, E. A.....L
1470 Williams, E. E.....L	1482 McDonald, F. A.....L
1741 Boulet, Wm. J.....L	

DODGEVILLE—Iowa Co.

67 Roberts, James.....R	1058 Williams, Wm. E.....L
1233 Roberts, Henry F.....G	679 Pryor, Jas. W.....A

DOWNING—Dunn Co.

80 Park, Willis H.....M

DORCHESTER—Clark Co.

4 Homsted, Augustus.....M

DURAND—Pepin Co.

940 Morgan, J. J.....L	1179 Gobar, F. J.....L
1436 Hougén, C. A.....L	743 Hoesser, August W.....A
784 Ruediger, Gustave F.....A	

DUNDEE—Fond du Lac Co.

683 Arimond, Jacob.....R

DEER PARK—St. Croix Co.

1063 Nilssen, Lars Steen.....G

EAST TROY—Walworth Co.

421 Griste, P. O.....R	654 Keats, W. S.....R
320 Zinn, Otto W.....A	756 Zinn, Chas. H.....A

EAU CLAIRE—Eau Claire Co.

70 Johnson, Wm. C.....R	81 Thompson, G. Tabor.....R
95 Nener, John C.....R	447 Klofanda, A. J.....R
459 Cass, J. E.....R	607 Playter, E. H.....R
613 Gadsby, Thos. L.....R	728 Noer, Ole.....R
761 Kinnear, Wm. A.....R	793 Williams, T. E.....R
800 Winslow, Geo. F.....R	839 Rowan, Edw.....R
1035 Ballard, Jos. M.....L	1162 Boberg, Otto J. S.....L
1387 Hvambshall, Carl M.....L	1408 Blestren, H. M. G.....L
1429 Levy, Benjamin.....L	1459 Winslow, Chas. F.....L
1497 Scott, Walter R.....L	1617 Gadsby, F. H.....L

1735 Fleming, Elias S.....L	1766 Urheim, Lars L.....L
1784 Musens, H. B.L	1849 Dukelow, R. T.L
300 Champlin, Thos. F.....A	353 Ovrom, Walter.....A
470 Neher, John N.....A	528 Ihle, Frank J.....A
551 Johnson, Joseph.....A	575 Allen, Fred Harris.....A
739 Fowler, Robert KA	772 Dohrman, Wm. E.....A

EAGLE—Waukesha Co.

493 Lorge, J. J.....A	708 Mueller, Chas. T.....A
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EAGLE RIVER—Oneida Co.

1413 Beardsley, Frank.....L	41 Haddy, Geo. HM
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EDGERTON—Rock Co.

42 Banks, Chas. H.....R	655 Doty, Geo. W.....L
981 Willson, B. C.....L	1229 Brown, Joey.....L

ELKHORN Walworth Co.

91 Isham, Fred WR	1077 Brainerd, L. E.....G
1469 Lyon, Will B.....L	1645 Buchta, Carl G.L
504 Hofert, Herman C.....A	

ELLSWORTH—Pierce Co.

230 Moody, John L.....R	1394 Swahn, Adolph.....L
1538 Baker, Arthur J.....L	650 Brownlee, Sherman H.....A

ELEVA—Trempealeau Co.

319 Yeomans, Cyrus E.....A	
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ELROY—Juneau Co.

26 Wrightman, Jas. W.....R	1124 Dix, Judson M.L
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EUREKA—Winnebago Co.

119 Chapelle, Lester E. ...R	
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ETTRICK—Trempealeau Co.

413 Cance, Jas. E.....A	
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EXCELSIOR—Richland Co.

702 Hilt, John R.....A	
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EVANSVILLE—Rock Co.

631 Evans, J. M.....R	1059 Evans, J. M., Jr.....L
1086 Crow, Frank M.....L	1373 Reed, Geo. H.....L
1653 Van Wart, L.....L	216 Race, Warren G.....A

FAIRCHILD—Eau Claire Co.

65 Arnold, R. E.....M	186 Baker, D. C.....A
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FALL RIVER—Columbia Co.

62 Haskin, J. H.....M	
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FERRYVILLE—Crawford Co.

1064 Lindstrom, Thos. G.....G	
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FENNIMORE—Grant Co.

923 Farnham, J. A.....R	924 Farnham, A.....R
1794 Brunk, Edw. W., Jr.....L	1876 Niehaus, Chas. J.....L

FLORENCE—Florence Co.

682 Penberthy, J. S.....R	1678 Rowe, Thos. D.....L
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FOND DU LAC—Fond du Lac Co.

136 Krumme, F.....R	215 Breed, Geo. N.....R
512 Pfeil, Anton.....R	514 Buchholz, Benno.....R
515 Huber, J. C.....R	550 Mitchell, Joseph.....R
659 Richter, A. E.....R	680 Dana, Jas. T.....R
691 Dilts, W. H.....R	713 Reives, W. H.....R
714 Reives, John E.....R	716 Stiles, S. B.....R
717 Givens, Frank M.....R	908 Breitenstein, W. R.....R
976 Remington, L. J.....L	1196 Kesten, Geo. H.....G
1351 Geisse, C. F. W.....G	1573 Koepenick, Julius E.....L
1666 Plank, Wm. R.....L	1677 Huber, Edw. J.....L
1829 Bronoel, D. D.....L	1865 Breister, Wm. W.....L
16 Krumme, S. A.....A	770 Sells, Otto A.....A
771 Seresse, Francis J.....A	

FOUNTAIN CITY—Butlfo Co.

450 Bechmann, Chas. R.....G	462 Bechmann, Henry.....R
1676 Reinhardt, Paul J.....L	788 Fugina, Edw. C.....A

FOX LAKE—Dodge Co.

287 Potts, A. H.....R	49 Marrow, Peter H.....A
478 Marrow, Luke E.....A	

FORT ATKINSON—Jefferson Co.

416 Dexheimer, H. J.....R	547 Sheldon, E. E.....R
852 Foote, Asa.....R	1842 Dexheimer, G. W.....L
121 Curtis, S. S.....A	

FORT HOWARD—Brown Co.

957 Hannon Felix.....L	1378 Tiernan James.....L
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FREMONT—Waupaca Co.

503 Kinsman, Jane C.....R

FRIENDSHIP—Adams Co.

1315 Frederick, Harry H. F...G

GALESVILLE—Trempealeau Co.

710 Holmberg, G.....R	732 Kneeland, A. H.....R
816 Scarseth, A. J.....R	

GENEVA LAKE—Walworth Co.

380 Hammersley, C. H.....R	381 Hammersley, W. H.....R
403 Arnold, R. B.....G	1218 Hammersley, W. H., Jr.....G
1355 Bryant, Jesse R.....G	1732 Tanck, Fred G.....L

GENOA JUNCTION—Walworth Co.

228 Goetze, Will C.....A

GILMANTOWN—Buffalo Co.

43 Clark, E. B.....M

GRATIOT—La Fayette Co.

123 Marriott, John.....R

GRAND RAPIDS—Wood Co.

1117 Voss, H. H.....L 1496 Daly, John E.....L

302 McRaith, M. J., Jr.....A 448 Scott, C. W.....A

731 Steib, Frank L.....A 738 Voss, Alvin.....A

GREENWOOD—Clark Co.

1512 Schindler, Louis B.....L 278 Buland, Geo. L.....A

GRANTSBURG—Burnette Co.

77 Olsen, Thorsten.....M

GREEN BAY—Brown Co.

79 Bliedung, C. T.....R 281 Robinson, John.....R

1066 Rhode, Henry.....R 1227 Soquet, Raphael.....L

1328 Canwenberg, Jos.....L 1362 Lecomte, Chas.....G

1374 Flatley, Wm. E.....L 1424 Schroeder, Chas. W.....L

1591 Heinzel, Henry.....L 1603 Luckenbach, Wilhelm.....L

GLENWOOD—St Croix Co.

1464 Douglas, Walter A.....R

HAMMOND—St. Croix Co.

812 Grinnell, B. E.....R

HANCOCK—Waushara Co.

206 Hales, B. L.....R

HAZEL GREEN—Grant Co.

214 Mills, Geo.R 1693 Williams, Edw.....G

HARTLAND—Waushara Co.

40 Travis, Edwin A.....M

HARSHAW—Oneida Co.

661 Wiley, C. LR

HARTFORD—Washington Co.

767 Nanscawen, R. H.....R 1065 Sherman, John H.....G

1176 Weiss, Anton.....L

HAYWARD—Sawyer Co.

20 Trowbridge, J. B.....M

HIGHLAND—Iowa Co.

533 Kennedy, Richard.....R

HILLSBOROUGH—Vernon Co.

820 Winslow, L. B. T.....R 974 Inman, Chas.....R
 767 Richards, Richard.....A 76 Pinch. F. I.....M

HORICON—Dodge Co.

1462 Bancroft, C. F.....G 284 Herker, Rowland W.....A
 350 Thomas, J. L. B.....A

HORTONVILLE—Outagamie Co.

799 Rideout, A. F.....L 303 Gansen, Albert.....A

HOLLENDALE—Iowa Co.

407 Parks, J. L.....A

HUDSON—St. Croix Co.

20 Boyden, P. Q.....R 231 Henning, John O.....R
 232 Jaggar, Henry B.....R 1050 Gatchell, Ernst E.....G
 1052 Menkey, Louis T.....L 1711 Crane, Frank R.....L
 707 Zwickey, Wm. H.....A 753 Nash, Frank L.....A

HUSTISFORD—Dodge Co.

128 Rex, Henry.....R 1312 Rex, Chas. H.....G

HURLEY—Ashland Co.

603 Sharp, Percy H.....A

HIXTON—Jackson Co.

299 Agnew, Edw. S.....A

IOLA—Waupaca Co.

84 Dale, Geo.....M

INDEPENDENCE—Trempealeau Co.

43 Taylor, Jas. C.....R

IRONTON—Sauk Co.

30 Fitz Gerald, J. R.....R

IRVING—Jackson Co.

690 Davis, Margaret E.....R

JANESVILLE—Rock Co.

5 Heimstreet, E B.....L 25 Eldredge, Wm. M.....R
 144 Yates, Chas. F.....R 275 Stevens, Chas. D.....R
 283 Evenson, Will E.....R 465 Stearns, Henry C.....R
 469 Baker, Jos. P.....R 614 McLean, Robert.....R
 813 Van Valen, D.....R 1120 Bump, Louis C.....L
 1236 Smith, Edmund O.....L 1544 Sherer, Will T.....L
 1594 Palmer, Herbert L.....L 1596 Pfennig, Will M.....L
 1789 Ranous, Harry E.....L 1790 King, Geo. E.....L
 1791 Bonesteel, Percy S.....L 143 Crouse, Fred M.....A
 205 Palmer, Wm. G.....A 571 Koerner, John.....A
 594 Smith, Otto E., Jr.....A 642 Tennent, David H.....A
 760 Schumaker, Henry A.....A 1465 Austin, M. E.....L

JEFFERSON—Jefferson Co.

258 Bechaud, A. R.....R 1231 Ray, Fred G.....G
682 Graf, Otto B.....A

JUNEAU—Dodge Co.

1204 Lueck, Geo. W.....L 1863 Wendt, F., Jr.....L

JUDA—Green Co.

782 Moldenhauer, W. F.....R

KAUKAUNA—Outagamie Co.

920 Kellogg, T. M.....R 1764 Mayer, Edw. A.....G

KEWASKUM—Washington Co.

121 Miller, Chas.....R

KEWAUNEE—Kewaunee Co.

313 Roberts, John A.....R 582 Kwapil, Wojta.....A
1866 Hulburt, Harrie L.....L

SOUTH KAUKAUNA—Outagamie Co.

313 Kanwertz, F. Jr.....A 220 Passino, F. G.....A
1642 Kauders, J. T.....L 1698 Hilfert, Henry O.....G

KENOSHA—Kenosha Co.

626 Hurd, Chas. H.....R 772 Hollister, E. H.....R
1017 Lamb, Wm. S.....L 1088 Schoenike, E. B.....L
1174 Woodward, O. H.....L 602 Lewis, John W.....A
757 Hall, Willis V.....A

KENDALL—Monroe Co.

21 Cutland, Wm. T.....R 723 Dunlap, R. B.....R

KIEL—Manitowoc Co.

264 Schroeder, Bertha.....R

KINGSTON—Green Co.

73 Volkmann, Henry.....M

KILBOURN CITY—Columbia Co.

346 McNeel, Walter.....R 368 Stillman, J. F.....R
480 Jenkins, G. W.....R 1817 Bretzke, Louis H.....L

KNAPP—Dunn Co.

58 Townsend, Chas.....M

LA CROSSE—La Crosse Co.

1 Spence, Thomas H.....L 94 Mariner, Geo. E.....R
100 McCord, Jas.....R 159 Bishop, Wm. A.....R
185 Pfiffner, Albert.....R 192 Howard, Edwin.....R
502 Bellerue, Albert.....G 516 Simon, Mathias.....G
517 Weston, J. W.....R 544 Lien, E. L.....R
587 Sjolander, C. A.....R 806 Runkel, L. A.....G

943 Hals, O. C.....G	949 Gorder, Christian.....L
1005 Beyschlag, Chas.....L	1186 Houck, Oscar.....G
1211 Partridge, H. L.....L	1240 Lang, Sister Mary M.....L
1501 Bell, Robert M.....G	1566 Burns, Sister Theodora M..L
1578 Kindly, John.....L	1586 Mailer, Wm. P.....L
1604 Koenig, Chas. F.....L	1716 Block, J. Arthur.....L
1725 Collier, Frank W.....L	1055 Draper, W. C.....L
1798 Nyhus, Edw.....L	1714 Wold, Jonas.....L
1746 Jacobus, Philip.....L	1475 Groezinger, Fred A.....L
1751 Congdon, Frank W.....L	1777 Hebbard, Edw. S.....L
1258 Rawson, M. A.....L	1623 Erhart, Oscar T.....G
1840 Unseth, O. A.....L	1116 Carr, Walter M.....L
591 Sieger, Jos. M.....A	667 Hoeschler, Chas. A.....A
786 Stangl, Henry J. M.....A	

LANCASTER—Grant Co.

484 Stone, Wm. N.....R	485 Hassell S. E.....R
1185 Bennett, Jos. T.....G	761 Muenich, F. C. O... ..A

LAKE MILLS—Jefferson Co.

870 Engsberg, Conrad.....G	972 Wegemann, A. H.....R
1612 Heimstreet, Chas. S.....L	754 Setz, Herman.....A
1771 Lonergan, M. D... ..L	

LIVINGSTON—Grant Co.

16 Cocklin, J. S.....M

LOWELL—Dodge Co.

171 Haughton, L. E.....R	1557 Schumacher, D. A.....L
1704 Seifert, H. E.....L	

LODI—Columbia Co.

193 Hinds, A. H.....R	844 McCloud, Jas. W.....R
1213 Gordon, Geo. O.....L	1807 Ebert, Carl F.....L

LYONS—Walworth Co.

31 Reeve, G. G.....R

LOYAL—Clark Co.

1841 Fenelon, M. P.....L	690 Steinert, H. F.....A
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LOGANSVILLE—Sauk Co.

686 Skiff, Mason J.....A

MADISON—Dane Co.

2 Hollister, A. H.....R	365 Mayers, Andrew A.....R
427 Sumner, Edwin.....R	567 Naffz Chas. H.....R
581 Pardee, A. A.....R	838 Clark, John H.....R
903 Bernhard, C. H.....G	1084 Dow, C. M.....L

1098 Lewis, Henry.....L	1115 Daubner, F. F.....L
1129 Menges, A. F.....L	1289 Haley, John C.....L
1381 Ott, Harlow S.....G	1554 Chantler, V. H.....L
1599 Krehl August W.....L	1824 Jaegel, Carl C.....L
1870 Sumner, Louis D.....L	1874 Lorch, Geo. J.....L
1 Swain, Frank.....A	455 Haley, Louis C.....A
657 Fett, Geo. H.....A	616 Peterson, Wm.....A
662 Schaus, Robert E.....A	668 Glenz, Adolph H.....A
728 Billings, Chas. S.....A	722 Candler, G. A.....A
749 Jones, Laura M.....A	

MANITOWOC—Manitowoc Co.

50 Hinrichs, Frederick.....R	90 Buerstatte, F. C.....G
117 Hinrichs, Henry.....R	130 Alter, O. A.....R
490 Stock, Emil F.....R	1060 Barnstein, J. E.....L
1198 Knutzen, Knud O.....L	1468 Kostlevy, Anton.....L
1734 Groffmann, Chas. A.....L	1779 Eggert, F.....L
1834 Huwatschek, Frank G.....L	578 Busse, Louis A.....A
709 Schmidt, Adelbert C.....A	

MAYVILLE—Dodge Co.

120 Sauerhering, R.....R	492 Schoen, A. F.....R
1245 Sauerhering, Edw.....L	

MARINETTE—Marinette Co.

618 John, D. W.....R	753 Stone, C. F.....R
895 Fairchild, C. M.....R	925 Fairchild, A. M.....R
939 Whitman, Alice.....R	1208 Walsh, C. C.....L
1327 Walsh, Mrs. Phebe E.....L	1388 Steinle, Wm.....G
1406 Raiche, Wm. J.....L	1606 Luckenbach, Simon F.....L
1655 Mueller, Frank.....L	80 Strong, J. L.....A
640 Colter, Samuel J.....A	

MARION—Waupaca Co.

204 Gansen, Wm.....A

MARSHALL—Dane Co.

332 Kelly, Lorin F.....A

MARKESAN—Green Lake Co.

531 Atkinson, Thos. Jr.....R	547 Atkinson, Geo. E.....A
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MAUSTON—Juneau Co.

438 Grimmer, F. E.....R	1087 Grimmer, W. A.....L
1167 Grimmer, F. E. Jr.....L	1532 Comer, Peter J.....G
1618 Grote, Emily L.....G	

MAZOMANIE—Dane Co.

603 Campbell, D. W.....R

MARTELL—Pierce Co.

522 Johnson, J. F., Jr.....R 644 Williams, Rod. S.....A

MARSHFIELD—Wood Co.

425 Sexton, W. A.....G 1010 Budge, W. HL
 1261 Szarzynski, Max.....L 1521 Horn, Henry.....L
 1839 Sexton, Jas. M.....L 1853 Bartels, Henry J.....L
 1875 Ascott, Geo. W.....L

MANAWA—Waupaca Co.

89 Woodnorth, F. S.....A 1499 Bullock, J. C. F.....L

MENEKAUNE—Marinette Co.

948 Thompson, H. G.....L 1651 Nelson, Oscar.....L

MENASHA—Winnebago Co.

1051 Rosch, John.....L 1624 Rupp, JohnG

MENOMONIE—Dunn Co.

75 Tonnar, Geo.....R 442 Ranum, O. K.....R
 1014 Pillsbury, A., Jr.....G 1590 Becker, Wm. H.....L
 1671 Ehrhard, Louis.....L

MERRILL—Lincoln Co.

207 Hillyer, F. H.....R 308 King, E. S.....R
 962 Drinker, John T.R 1306 Felker, Gus. AL
 1619 Tomkins, Chas. F.....G 693 Runge, Wm. A.A
 701 Britt, Henry W.....A

MEDFORD—Taylor Co.

951 Suits, C. GL 1392 Hammel, JosL
 277 Tonne Wm. H.....A 637 Benn, August.....A
 751 Beil, Wm. P.....A

MELROSE—Jackson Co.

169 Gearing, Wm. F.....A

MERRILLON—Jackson Co.

711 Hathaway, W. RR 783 Merrill, O. H.....R

MINERAL POINT—Iowa Co.

396 Prideaux, W. H.....R 705 Vivian, John H.....R
 1444 Vivian, Fred.L 1445 Ruckes J. CL
 1529 Bliss, Wm. P.....G 1715 Mc Donald, Hugh FL
 1765 Vivian, Alfred.....G 1871 Horn, Geo. W.....L

MILTON—Rock Co.

6 Clarke, W. P.....R 632 Root, Frank AA

MILTON JUNCTION—Rock Co.

537 Gates, W. H.....G 139 Burdick, R. T.....R

MONDOVI—Buffalo Co.

122 Wyman, W. W.....R 9 Brown, F. AA

MONTELLO—Marquette Co.

303 Pratt, H. J.....R	55 Pratt, M. H.....A
225 Bass, Edw. A.....A	

MOUNT HOREB—Dane Co.

267 Evans, Neils C.....A	1799 Rogers, J. E.....L
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MONTFORT—Grant Co.

671 Thomas, J. A.....L	
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MONTICELLO—Green Co.

492 Fischer, Ed. J.....A	
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MONROE—Green Co.

280 Trukenbrod, W. F.....R	632 Lichtenwalner, A. F.....R
848 Howard, H. L.....R	916 Lytle, C. A.....R
1324 Steinmann, Gustave.....G	1545 Wakeman, C. A.....L
1631 Bellows, Burton H.....L	1640 Eley, E. E.....L
1818 Baumann, John F.....L	405 Darling, F. E.....A

MUSCODA—Grant Co.

331 Jeffries, Wm. H.....R	1516 Hasler, S. J.....L
7-7 Dimock, H. A.....A	

MUKWONAGO—Waukesha Co.

508 Andrews, L. G.....R	509 Wood, Frank A.....R
815 Clohisy, J.....R	1812 Escher, Frank H.....L
577 Ames, J. W.....A	

MINOCQUA—Oneida Co.

1633 Kordenat, Geo. H.....L	
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MILWAUKEE—Milwaukee Co.

4 Conrath, Adam.....G	12 Schulze, Fred M.....R
34 Holden, Justin.....R	46 Woodnorth, J. H.....R
62 Hammel, H. D.....R	72 Bender, Wm.....R
74 Widule, Christian.....R	134 Wolfrum, Geo.....R
143 Neidecken, Frank.....R	150 Meibohm, Henry.....R
163 Sykes, H. D.....R	178 Pierce, Harvey S.....R
180 Eckstein, S. A.....R	181 Wright, Geo. H.....B
182 Wright, A. T.....R	183 Dadd, R. M.....R
184 Jones, Daniel R.....R	220 Guenderoth, Oscar.....G
239 Allcott, J. M.....R	249 Wright, S. J.....R
302 Drake, J. R.....R	303 Drake, H. T.....R
304 Drake, H. W.....R	305 Richardson, A. B.....R
306 Webb, F. E.....R	307 Gieseler, E.....L
309 Gregory, H. B.....R	310 Ernst, G. P.....R
311 Barr, Wm. H.....R	322 Kienth, John.....G
330 Hunter, Murrey M.....R	337 Stilcke, Chas. A.....R
341 Ladwig, Paul.....L	338 Ladwig, F. F.....R

343 Schranck, H. C.....G	353 Pflugradt, Chas.....R
355 Wiese, C. H.....R	357 Wiese, R.....R
359 Esau, Fred.....L	364 Grover, L. M.....R
366 Thiele, Otto A.....G	390 Dorestan, H.....G
391 Meyer, Louis.....R	401 Krembs, Ernst.....R
404 Ritmeier, Wm.....R	409 Josse, G.....R
411 von Baumbach, Chas.....R	422 Schorse, Otto.....R
448 von Trott, August.....R	473 Penniman, H. G.....R
501 Schulz, H. L.....L	565 Kropp, Wm.....R
590 Wallschlaeger, P.....G	594 Goes, Wm. A.....G
611 Baumbach, C. A.....R	627 Strohmeier, Chas. H.....R
628 Strohmeier, H. L.....R	673 Spiegelberg, Emil R.....R
789 Hackendahl, H. H.....R	801 Sherman, Louis.....R
872 Meadows, Samuel H.....G	874 Hopp, A.....L
890 Nau, Frank.....L	891 Fess, Henry.....L
899 Rupp, Louis.....L	600 Boettcher, Henry.....L
932 Abbott, Frank.....R	946 Lotz, Louis.....G
979 Kaiser, W.....L	990 Gessler, Max.....G
993 Dietz, Emil.....L	995 Bartel, Max.....L
1000 Hensel, Geo. E.....L	1002 Stoetzer, Henry.....L
1011 Faber, Chas. A.....L	1021 Lochemes, W. T.....L
1030 Huffschmidt, Frank.....L	1048 Czechorski, A. V.....L
1080 Brown, A.....G	1085 Hafeureffer, Adolph.....L
1095 Luethe, A.....G	1101 Segall, Wm.....L
1112 Grieb, F. J.....G	1122 Drake, L. M.....L
1123 Foster, Chas. P.....L	1133 Shead, A. A.....L
1138 Frank, Herman O.....G	1147 Kuehnelt, G. F.....G
1150 McNeel, Jas. S.....L	1153 Emmerich, Herman.....L
1159 Roerig, Wm.....L	1160 Kropf, O. A.....G
1166 Segall, Jacob.....L	1177 Goetz, Max J.....L
1178 Raeuber, Edw.....G	1183 Baldauf, Geo. L.....L
1188 Speigel, A.....R	1189 Meachem, John M.....R
1194 Kettler, E. Jr.....L	1200 Rauschenberger, J. F.....L
1216 Cohn, A. H.....G	1222 Weber, John P.....G
1223 Reinholdt, Max.....L	1230 Tomkewitz, John W.....L
1232 Valet, Herman.....G	1237 Banks, Geo. E.....L
1247 Schulz, G. H. E.....L	1248 Kaumhiemer, M.L
1249 Roth, E. G.....G	1253 Hiecke, Wm.....G
1254 Reinholdt, H. O.....G	1256 Burger, C. F. Jr.....G
1259 Maas, John.....L	1265 Trompezyński, Jos.....L
1269 Dietz, Mathias.....L	1274 Martens, J. A.....G
1279 Riechel, H. C.....L	1284 Lambeck, Herman.....L
1296 Blankenhorn, A.L	1297 Hoya, Wm. C.....L
1304 Schneider, Wm.....L	1305 Gallaher, Chas. S.....L

1308 Mieding, A. E.....G	1317 Werner, R. C.....L
1318 Mitchell, Andrew S.....G	1344 Krause, Chas. H.....L
1354 Janssen, Jacob S.....L	1364 Loepfe, Alvin.....L
1366 Czerwinski, A. H.....L	1376 Ladd, Thos. M.....L
1395 Lorentz, Geo. L. W.....L	1398 McMillan, M. W.....G
1402 Bunsen, Robert P.....L	1403 Cambier, Jacob.....G
1410 Sonnemann, Chas.....L	1412 Conrad, Carl J.....L
1421 Hoydorn, Chas. F.....L	1422 Matthieson, C. D.....L
1423 Stangl, Jos. A.....L	1439 Bleyer, Theo.....G
1446 Roemheld, H. F. W.....L	1451 Wegner, Emil A.....G
1461 Weise, R. W.....G	1478 Hennei, Casper A.....L
1480 Hasenmiller, J. J.....L	1481 Bours, Thos. R.....L
1484 Matthiesen, Geo. J.....L	1487 Klemm, Paul E.....L
1494 Riehl, Fred W.....L	1495 Trayser, Harry P.....L
1505 Urban, L. C.....L	1527 Schorse, G. O.....G
1528 Weber, Herman F.....G	1536 Vogel, Edw. W.....L
1540 Teich, W. E. H.....L	1547 Schmit, Louis.....L
1549 De Swarte, Peter B.....L	1550 Stoltz, Herman J.....G
1567 Goetsch, H. F. A.....L	1579 Van Ells, Henry M.....L
1584 Hunkel, Carl J.....L	1595 Hempe, Edw. A.....L
1601 Abbott, Miss Clara Mae..G	1608 Lloyd, Wm. J.....L
1609 Mason, G. F.....L	1610 Hackendahl, Otto.....G
1614 Liepe, Carl.....L	1615 Kopf, Hugo S.....L
1628 Banaszynski, Jos. C.....L	1629 Kuhns, Wm. G.....L
1635 Kressin, Louis.....G	1641 Hinz, Richard C.....L
1643 Cox, Edward.....L	1546 Best, Rudolf.....L
1648 Volkman, Fred W.....L	1652 Weissenborn, A. C.....L
1668 Laabs, Otto C.....L	1664 Wolff, A. F. G.....L
1674 Weigle, Geo. J.....L	1686 Halm, Edw.....L
1687 Thiele, R. C.....L	1691 Meissner, Fritz, W.....G
1681 Olander, Martin L.....L	1705 Schmidt, Felix.....L
1720 Zimmerman, Chas. O.....L	1721 Braun, Frank.....L
1722 Billerbeck, Clem J.....L	1730 Hillmantel, Henry.....L
1737 Schulz, J. H. A.....L	1752 Brehm, Carl.....L
1759 Koerner, Christian.....L	1763 Dietz, Hugo.....G
1769 Ahnert, Paul.....L	1772 Krembs, Ernest M.....L
1773 Poenisch, O. H.....L	1775 Werner, Henry C.....L
1776 Lambeck, Frank J.....L	1788 Clark, Thos. M.....L
1792 Rogers, Claud L.....L	1793 Abraham, E, G.....L
1795 Clausen, Christian.....L	1796 Gerrit, Geo. A.....L
1803 Tomkiewicz, Anton.....L	1804 McDougall, G. T.....L
1810 Kellermann, Fred.....L	1811 Klemm, Louis F.....L
1821 Hoffbauer, Chas. J.....L	1823 Tracy, John J.....L
1825 deHosson, B. F.....L	1826 Roller, Willis R.....L

1827 Passehl, John J.....L	1830 Waugemann, T. C.....L
1832 Marlowski, S. T.....L	1833 Gerlach, Herman.....L
1836 Schacht, Arthur.....L	1845 Kaulfuss, Leo.....L
1856 Blanchard, H. T.....L	1857 Jones, Alfred J.....L
1858 Luebke, Arthur J.....L	1859 Heitman, Wm.....L
1868 Cunradi, Julius.....L	1869 Brin, Joseph.....L
2 Brain, L. J.....A	42 Allcott, C. F.....A
785 Tomkiewicz, Frank J.....A	338 Buckley, F. J.....A
368 Terhorst, Daniel.....A	426 Kuhnmuench, F. J.....A
440 Schmit, Felix.....A	441 Hamp, Geo. F.....A
449 Bitter, Henry G.....A	451 Coerper, Eugene E.....A
502 Lederer, W. D.....A	550 Behnke, Fred P.....A
560 Kleinhaus, M. A.....A	567 Baumgarth, Oscar H.....A
585 Luehring, Geo. F.....A	587 Nachtsheim, Frank.....A
526 Nintzel, Arthur R.....A	609 Stocker, Jacob.....A
614 Trayser, Max E.....A	621 Kaiser, Chas. J.....A
623 Weber, B. A.....A	624 Lau, Louis.....A
625 deHarde, F. A. D.....A	626 Regan, Eugene D.....A
643 Barnes, Wm. H.....A	647 Piszczek, Frank J.....A
653 Uecke, John J.....A	97 Brehm, Carl.....A
496 Brenecke, Arthur.....A	656 Grings, Henry.....A
374 Schmitz, Albert C.....A	670 Esser, Fred H. J.....A
674 Binzel, Alexander.....A	677 Wassweiler, Chas. S.....A
678 Goetz, Fred E. R.....A	683 Stetter, Frank X.....A
685 Krienitz, Alfred J.....A	692 Kremers, Geo.....A
699 Kurtz, Wm.....A	700 Thompson, Francis A.....A
703 Kitzgerow, Alvin.....A	705 Jeske, Geo. C.....A
706 Reichenbach, Alvin.....A	713 Showalter, Edwin A.....A
714 Hoyer, Eugene.....A	715 Schwanberg, B.....A
716 Dobberphul, Aug.....A	719 Woelm, Wm. C.....A
356 Boerner, R. W.....A	318 Eudemiller, C. H.....A
727 Owens, David.....A	669 Cowles, Geo. H.....A
737 Lesselyoung, Geo. P.....A	746 Elsner, Geo.....A
747 Freytag, Ernst F.....A	748 Martens, A. G.....A
272 Hassinger, Louis.....A	331 Schwanberg, Paul F.....A
762 Wussow, Hugo F.....A	763 Schw Walter, Jacob.....A
764 Vogel, Fred.....A	765 Mack, Louis.....A
766 Schwanberg, Hugo J.....A	

NEW LONDON—Waupaca Co.

88 Trayser, Anthony.....R	1523 Trayser, Walter A.....G
1762 Trayser, Morton C.....G	1709 Emde, Arthur L.....G

NEW RICHMOND—St. Croix Co.

1454 Aldrich, Mrs. Belle E.....L	1568 Patton, John G.....L
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1662 Kaye, Evan O.....L 1877 Falahy, James M.....L
 91 Allen, Henry C.....A

NEW LISBON—Juneau Co.

882 Hansen, J. H.....R 797 Nichols, E. B.....R
 1435 Elwell, Fred O.....L 1873 Elwell, Youlen.....L

NEILLSVILLE—Clark Co.

471 Sniteman, C. C.....G 1061 Enckhausen, Harry.....L
 1456 Sontag, Geo. L.....G 1539 Estlingen, Evert.....L

NEOSHO—Dodge Co.

252 McCollow, John M..... R

NECEDAH—Juneau Co.

708 Canfield, Thomas M.....R 1180 Seaman, Emma J.....L
 1278 Ward, Jennie RL 1692 Halsey, Rob. I.....G

NEENAH—Winnebago Co.

245 Elwers, F.....R 115 Marsh, E. B.....R
 576 Griswold, E. W.....L 641 Gleason, H. J.....R
 950 Henry, S. F.....L 1466 Barnett, M. E.....L

NORTH FREEDOM—Sauk Co.

18 Wetmore, N. F.....M 86 Fischer, Wm.....M

NORWALK—Monroe Co.

91 Roof, Wm.....M

NORTH CAPE—Racine Co.

729 Spillum, Geo.....R

NEW HOLSTEIN—Calumet Co.

1860 Bruhn, Julius F.....L 1861 Timm, Edmund W.....L

NEKOOSA—Wood Co.

430 Lapham, Mrs. A. E.....A

NERO—Manitowoc Co.

1252 Pfunder, F. H.....L

OAKFIELD—Fond du Lac Co.

847 Burns, Thomas.....R 863 Burns, J. W.....R

OCONOMOWOC—Waukesha Co.

80 Mertes, Anton.....R 296 Lardner, W. LR
 384 Brown, F. B.....R 1380 Race, Warren G.....G
 1431 Baum, Harry C.....L 1729 Peters, Henry A.....G
 1739 Smith, Chas. ML 532 Lloyd, M. R.....A
 562 Lardner, Wm. F.....A

OSSEO—Trempealeau Co.

175 Wooster, A. L..... R 1835 Brandon, Andrew H.L
 1844 McPhail, Miss Kate.....L 48 Hotchkiss, H. E.....A

OCONTO—Oconto Co.

186 Ford, S. W.....R	956 Ford, J. L.....L
1074 Luckenbach, A. H.....L	1326 Germond, Harry J.....L
1477 Elliott, G. S.....L	

OGDENSBURG—Waupaca Co.

420 Basteen, W. J.....R	919 Moses, John R.....R
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OMRO—Winnebago Co.

218 Douty, C. S.....R	349 Lasher, Geo. C.....R
1372 Campbell, Chas.....L	

ONALASKA—La Crosse Co.

1182 Aldrich, W. H.....L	
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ONTARIO—Vernon Co.

737 Sloggy, Samuel.....R	802 Phelps, H. J.....R
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ORFORDVILLE—Rock Co.

78 Taylor, Chas.....M	
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OREGON—Dane Co.

911 Fox, Jos., Jr.....R	1235 Skelly, Geo. A.....L
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OSHKOSH—Winnebago Co.

78 Schmidt, J. F. W.....R	137 VonKaas, A. M.R
160 Griffiths, Peter A.....R	444 Froelich, J. A.....R
601 Bauman, Geo.....R	747 Wegener, H. J.....R
803 Williams, Chas. E.....R	804 Williams, M. J.....R
301 Turner, Jas.....R	362 Sweeney, M. W.....R
1094 Horn, E. A.....G	1220 Bauman, L. A.....G
1228 Hicks, J. W.....L	1214 Heider, H. G.....G
1349 Weeden, Harry W.....G	1290 Werbke, N. C.....L
1679 Newton, Selim H.....L	1706 Tanner, H E.....L
1809 Tullledge, E. G.....L	1829 Mierswa, Otto R.L
1719 Nintzel, Arthur R.....L	1855 Peterson, Jas. S.....L
187 Bass, Henry.....A	274 Callies, Frank E.....A
376 Weisbrod, Chas. A.....A	510 Mueller, Fred W.....A
604 Stockmeyer, Oscar C.....A	673 Stnelke, L. B.....A
718 Miller, J. C.....A	781 Pierson, Jas. H.....A

OGEMA—Price Co.

1683 Champlain, T. F.....L	
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OSCEOLA—Polk Co.

285 Staples, C. W.....R	55 Staples, F. D.....A
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OTSEGO—Columbia Co.

926 Pulver, W. A.....R	
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OXFORD—Marquette Co.

551 Chilson, Benjamin....R	
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PARDEVILLE—Columbia Co.

113 Van Schaick, Mrs. S.....R 266 Inglehart, Almon.....A

PALMYRA—Jefferson Co.

210 Washburne, R. J.....R 755 Plehn, John F.....A

PEWAUKEE—Waukesha Co.

1400 Cameron Claud N.....L

PESHTIGO—Marinette Co.

942 Conkling, John S.....R 1520 Love, P. J.....L

PHILLIPS—Price Co.

194 Sperry, Willis P.....A 1613 Sperry, E. D.....L

PITTSVILLE—Wood Co.

566 Trumbull, Jay.....R 1068 Szarzynski, Chas.

89 Wood, M. B.....M

PLATTEVILLE—Grant Co.

740 Goodell, L. L.....R 742 Youmans, H. J.....R

907 Drinkall, T. O.....L 1155 Wright, Chas. E.....L

PLOVER—Portage Co.

14 Pierce, M. F.....R

PLUM CITY—Pierce Co.

688 Schulthess, J. J.....R

PRENTICE—Price Co.

698 Salter, Frank J.....R

PLYMOUTH—Sheboygan Co.

248 Pfeiffer, ChasR 656 Schlaich, Julius.....R

1437 Corbett, Geo. W.....G 100 Pfeiffer, Emma.....A

742 Corbett, Adison B.....A

PLAINFIELD—Waushara Co.

345 Pratt, Hiram.....R 520 Borden, B. B.....R

1072 Thomson, Thos L.....L Stevens, Theo. W.....A

PORT WASHINGTON—Ozaukee Co.

24 Young, NicholasR 278 Audier, M.....R

1636 Courtland, Fred.....L

POYNETTE—Columbia Co.

98 Hinkson, E. E.....R 570 Square, L. A.....R

PORTAGE—Columbia Co-

190 Purdy, Edmund.....R 221 Graham, JohnR

228 Edwards, Wm. M.....R 1219 Rhyme, F. A.....G

1749 Liebig, Upson RosaL 1838 Cunningham, Thos. FL

33 Bellinghausen, H. L.....A

PRAIRIE DU CHIEN—Crawford Co.

92 Wright, E. M.....R	243 Brower, Arthur.....R
704 Brower, T. L.....R	1399 Wright, Elmer E.....L
90 Curran, Jas. A.....A	

PRINCETON—Green Lake Co.

559 Lichtenberg, Otto H.....R	560 Millard, N. T.....R
1488 Mueller, Frank.....L	39 Zobel, Ida.....A

PROSPECT HILL—Waukesha Co.

535 Winton, L. S.....R	536 Winton, T. S.....R
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PRESCOTT—Pierce Co.

912 Welch, E. R.....R	913 McCray, H. B.....R
914 McCray, Carlos.....R	Welch, G. P.....R

PRAIRIE DU SAC—Sauk Co.

512 Weaver, Jas. S.....A	
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PRAIRIE FARM—Barron Co.

329 Farness, Ole W.....A	
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PINE RIVER—Waushara Co.

544 Hunt, G. E.....A	
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RACINE—Racine Co.

36 Robinson, Richard.....R	300 Fancher, F. L.....R..
394 Marlott, Geo. D.....R	395 Kirkby, W. R.....R
605 Harbridge, F.....R	616 Stone, W. L.....R
617 Stone, H. G.....R	622 Schulze, T.....L
624 Schulze, W.....G	664 Lochner, John T.....R
876 Gieseler, Chas. L.....L	922 Morris, M. D.....R
1359 Schulze, John.....L	1243 Wickern, Chas.....G
1534 Kradwell, Gustav V.....G	1761 Williams, Robert T.....G
1563 Thiesen, T. W.....G	1718 Loppenthien, John W.....L
1753 Harbridge, Geo. F.....L	1785 Silber, Arthur.....G
1723 Harbridge, D. F.....L	494 Davis, Wm. L.....A
503 Johnson, Harry S.....A	576 Fancher, Walter H.....A
559 Franzel, Julius.....A	672 Christensen, F. W. A.....A
676 Pelikan, Theo. J.....A	584 Fazen, Theo. J.....A
732 Olle, A. E.....A	758 Baumann, Chas. R.....A
768 Pokorny, Joseph C.....A	769 Madsen, Carl V.....A

RANDOLPH—Columbia Co.

539 Lightner, Mrs. J. A.....R	540 Lightner, J. A.....R
823 Lightner, J. S.....R	

REEDSBURG—Sauk Co.

317 Ramsey, W. H.....G	16 Hulburt F. D.....R
1079 Kordenat, C. F. W.....G	408 Edwards, A.....A
724 Stolte, Geo. W.....A	

RIDGEWAY—Iowa Co.

87 Roach, R. J.....M

RICHLAND CENTER—Richland Co.

568 Allen, H. B.....R 686 Brimer, John N.....R
 739 Cleveland, I A.....R 1280 Burnham, J. W.....L
 1356 Smith, F. O.....L 1580 Dieter, J. W.....L
 1616 Dieter, C H.....L 417 Masilko, Frank V.....A

RIPON—Fond du Lac Co.

376 Brayton, Jas. E.....R 930 Doyle, Chas. A.....R
 1032 Burnside, E. J.....L 1165 Kossat, Chas.....L
 1654 Jackson Fred A.....L 533 Koebernick, Walter E.....A
 774 Cook, F. W.....A

RIO—Columbia Co.

97 Linquist, Chas. J.....R 1696 Gilman, W. F.....G

RIVER FALLS—Pierce Co.

155 Freeman, R. S.....R 798 Youells, A. M.....R
 104 Brier, J. W.....R 894 Forsyth, A. P.....R
 1106 Taggart, C. R.....L

RICE LAKE—Barron Co.

623 Heintz, N. W.....R 1637 Nunn, Chas. F.....L
 1712 Kelly, John J.....L 1867 Pepple, Ransom F.....L

RHINELANDER—Oneida Co.

1111 Hinman, Mrs. A. A.....L 1757 Chafee, Robert E.....L
 569 Marks, M. F.....A 597 Timlin, Frank D.....A

ROCHESTER—Racine Co.

128 Cady, Lizzie S.....A

ROSENDALE—Fond du Lac Co.

348 Hall, Storrs.....R 1778 McKnight, L. A.....L

ROBERTS—St. Croix Co.

354 Sanford, O. D.....B

ROYALTON—Waupaca Co.

405 Craig, W. R.....R 1650 McCord, Sidney G.....L

REESEVILLE—Dodge Co.

659 Fisher, E. B.....A 780 Reinhard, G. C.....A

ROCK ELM—Pierce Co.

691 Kendall, Fred W.....A

SAUK CITY—Sauk Co.

1770 Marquardt, August E.....L

SEYMOUR—Ontagamie Co.

910 Le Mieux, L. A.....L

SENECA—Crawford Co.

24 Smethhurst, Daniel.....M

SHARON—Walworth Co.

40 Morris, D. G.....R 208 Underhill, H. D.....R
 209 Lowell, D. W.....R 692 Morris, Libbie J.....A

SHEBOYGAN—Sheboygan Co.

71 Mahlendorf, A., Jr.....R 106 Thieman, F. W.....R
 164 Kuener, Adolph.....R 579 St. Sure, W. O.....R
 672 Bock, A. W.....R 878 Zaegel, Max R.....G
 456 Graus, Joseph.....R 1323 Neumeister, Otto C.....G
 1382 Meyer, Louis C.....G 1620 Meier, Paul F. W.....L
 1742 Look, John H.....L 1816 Look, Otto.....L
 433 Neumeister, Arthur.....A 783 Kalk, Wm. A.....A

SHEBOYGAN FALLS—Sheboygan Co.

834 Barragar, W. H.....R 726 Jackson, Clarke W.....A

SHOPIERE—Rock Co.

158 Manley, A. B.....R

SHAWANO—Shawano Co.

255 Cantwell, Wm. H.....R 779 Naber, F. D.....R
 1192 Williams, John L.....L 1576 Graves, Chas.....L
 1667 Dick, Wm. H.....L 1755 Gallagher, John G.....L

SHULLSBURG—La Fayette Co.

470 Goodloe, J. H.....R 557 Griswold, D. C.....R
 1754 Tarrant, I. H.....L

SHELL LAKE—Burnette Co.

523 McDermott, S. T.....A

SOLDIERS GROVE—Crawford Co.

373 Smith, R. L.....R 660 Errickson, Albert A.....A

SOUTH WAYNE—Washington Co.

528 Woolhiser, Mrs. A. A.....A

SPRING GREEN—Sauk Co.

131 Davies, D. D.....R 1703 Hare, G. W.....L

SPENCER—Marathon Co.

263 Heath, Edwin.....R 941 Graves, S. D.....R
 111 Heath, Mary C.....A

SPARTA—Monroe Co.

109 Crane, E. W.....R 234 Newton, F. N.....R
 387 Palmer, W. P.....R 795 Howell, H. S.....R
 414 Prill, J. C.....R 1533 Schaller, Paul.....L
 151 Tobey, C. E.....A 174 Crosse, F.....A

ST. CROIX FALLS—Polk Co.

266 Isaacson, Alfred.....R

STOCKBRIDGE—Calumet Co.

369 Merrill, John M.....R 417 Thompson, Louisa M.....R
 1738 Pritchard, Theo. E.....L

STAR—Vernon Co.

734 Carpenter, Amos.....R

STAR PRAIRIE—St. Croix C.

971 Millard, C. F.....R 1530 Perrin, Harry E.....L

STURGEON BAY—Door Co.

673 Speigelberg, Emil.....R 1343 Reichel, Mrs. Lizzie W.....L
 1548 Stiles, Henry A.....L

STEVENS POINT—Portage Co.

538 Congdon, Jas. R.....R 759 Mitchell, W. W.....R
 1337 Atwell, W. F.....L 1455 Taylor, David A.....G
 1524 Taylor, Wm. W.....L 1611 Mieding, R. H.....G
 1727 Kiesel, John G.....L

STOUGHTON—Dane Co.

375 Sheldrup, A. F.....R 647 Falk, O. N.....R
 648 Falk, F. N.....R 724 Melaas, O. O.....R
 727 Rutlin, Lars L.....R 630 Sonn, Jas. V. N.....R
 191 Lothe, Ole H.....A

STOCKHOLM—Pepin Co.

1006 Bellerue, Emanuel.....L

SUN PRAIRIE—Dane Co.

52 Lewis, L. V.....R 556 Crosse, T. P.....R
 559 Crosse, C. G.....R 32 Lewis, Ada A.....A

SUPERIOR—Douglas Co.

1281 Merrill, B. D.....L 1682 Hamen, Frank C.....L
 641 Belanger, S. W.....A

STANLEY—Chippewa Co.

1850 Medland, Fred.....L

SCANDINAVIA—Waupaca Co.

1113 Buseth, Nils.....L

SOUTH SUPERIOR—Douglas Co.

1015 Osberg, J. E.....G 1587 Hummer, Jas. S.....L

SPRING VALLEY—Pierce Co.

58 Rostad, K. T.....R 694 Spence W. G.....R
 1479 Turner, Frank H.....L 1703 Hare, G. W.....L
 201 Clough, J. A.....A

SPRING PRAIRIE—Walworth Co.

562 Hubbard, E. C.....R

THORP—Clark Co.

937 Van Dusen, ChasR

TOMAH—Monroe Co.

69 Spence, R. L.R 1237 Banks Geo. EL

1294 Calkins, Chas. A.L 21 Hallett, John W.A

TOMAHAWK—Lincoln Co.

796 Macomber, C ER 1748 Webster, J. CL

TREMPEALEAU—Trempealeau Co.

18 Pierson, J. H.R 12 Pierson, J. S.M

TWO RIVERS—Manitowoc Co.

199 Gebhart, H. M.R 358 Kirst, C. F.A

THERESA—Dodge Co.

695 Fickert, Adolph F.A

TURTLE LAKE—Barron Co.

1661 Lohrbauer, Ejnar.L

UNION GROVE—Racine Co.

25 Callender, Wm. J.A

UNION CENTER—Juneau Co.

211 Gilluly, Thomas.R 46 Gilluly, J. P.A

UNITY—Marathon Co.

83 Clark, Jas. H.M

VIROQUA—Vernon Co.

902 Trowbridge, C. H.L 1260 Dahl, Chas. F.L

1467 Johnson, Andrew J.L 1560 Burlin, Frank H.L

1659 Spellum, Chris. L.L 608 Arnold, Wyman S.A

VIOLA—RICHLAND Co.

458 Burgor, N. H.R 574 Mathews, C. F.R

WATERTOWN—Jefferson Co.

223 Brennecke, R.R 224 Steinfert, Henry.R

497 Eberle, Henry.G 927 Johnson, E.R

1391 Gamm, Chas. A.L 1397 Polzin, Leo.L

1546 Stapleton, Edw. M.L 1583 Molzahn, John.L

710 Lehmann, Robert.A 712 Bergmann, Henry.A

781 Ackermann, A. F.A 782 Schmidt, Wm. H.A

WAUTOMA—Waushara Co.

425 Sexton, W. A.G 684 Nickerson, L.R

WAUNAKEE—Dane Co.

629 Hudson, Chas.R

WAUPACA—Waupaca Co.

77 Whipple, Frank.R 496 Calkins, G. H.R

643 Bailey, Ransom.R 832 Baldwin, Walter C.R

877 Hocking, Wm. J.....L	1195 Pelton, L. H.....L
1395 Lorentz, G. L. W.....L	1457 Haffmier, L. A.....L
1701 Naughton, Jos. M.....L	1781 Braaten, Martin O.....G
1814 Biebeshiemer, A. W.....L	147 Bemis, J. W.....A

WATERLOO—Jefferson Co.

145 Humphrey, A. J.....R	736 Failing, Conrad.....R
792 Bailey, Oscar C.....R	1150 McNeel, Jas. S.....L
556 Whipple, Edwin O.....A	

WAUPUN—Dodge Co.

575 Patton, E. B.....L	15 Griffis, W. C.....R
1680 Worm, Gustav A.....L	629 Johnson, Carl C.....A
688 Richardson, Frank J.....A	

WARREN MILLS—Monroe Co.

841 Barker, W. A.....R	
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WAUZEKA—Crawford Co.

3 Sillge, W. M.....M	5 Vaughan, W. A.....M
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WAUWATOSA—Milwaukee Co.

1335 Schwaiger, E. H.....L	1806 Burbank, A. I.....L
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WAUKESHA—Waukesha Co.

216 Swan, Wm. E.....R	428 Wardrobe, F.....R
625 White, I. M.....R	909 Dunlap, Chesley L.....L
1075 Blair W. G.....L	1082 Estberg, A. C.....L
1091 Sanner W. L.....L	1100 Nelson, C. E.....L
1119 Dunlap, Will P.....L	1210 Arnold, C. S.....L
1346 Leland, A. M.....G	1713 Arnold, Halton C.....L
1756 Jones, Geo. A.....L	1831 Allen, Clarence M.....L
393 Williams, John S.....A	482 Ahnert, Paul.....A
633 Morris, Harry F.....A	697 McCoy, M. J.....A
704 Meier, A. O.....A	723 Smith, Edw. A.....A
518 Lau, Arthur P.....A	

WALDO—Sheboygan Co.

19 Lawson, R. W.....M	501 Peck, David R.....A
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WAUSAU—Marathon Co.

388 Frost, H. A.....R	580 Pardee, E. D.....R
860 Mormon, F. H.....R	1081 Albers, W. W.....G
1428 Adams, G. W.....L	1426 Naffz, Gustav.....G

WASHBURN—Grant Co.

1411 Owen, Edwin S.....L	1670 McDonald, L. J.....L
1767 Spiess, Axel.....L	776 Frost, Quincy W.....A

WEST SALEM—La Crosse Co.

19 Johnson, Alex.....R	352 Gullickson, Thos.....A
1093 Rynning, J. G. M.....L	1852 Miles, Alvah M.....L

WEST BEND—Washington Co.

58 Wolfrum, F.....R 1442 Wehle, Wm. J.....L
 1675 Wehle, E. H.....L

WESTFIELD—Marquette Co.

60 Abbott, FrankR 31 Hill, H. D.....M
 1736 Lichtenwalner, Harvey..L

WEYAUWEGA—Waupaca Co.

1644 Post L. D.....L

WESTBY—Vernon Co.

1526 Noer, OlafG

WEST LIMA—Richland Co.

132 Tillou, Harvey D.....R 53 Tillou, Mrs. Letitia M.....A

WEST SUPERIOR—Douglas Co.

251 Hanson, John.....R 257 Godding, Edw. RG
 399 Slocum, C. H.....R 584 Draper, A. E.....R
 778 Hayerdahl, A.....R 1034 Johnson, Matt J.....L
 1299 Somerville, R.....L 1405 Johnson, John B.....G
 1443 Aust, Chas. W.....L 1452 Larsen, Geo. F.....L
 1498 Niehoff, Frank H.....L 1514 Friis, L. C. H.....L
 1553 Campbell, Alex. A.....L 1562 Fulton, John L.....L
 1731 Clarke, John F.....L 1797 Carey, Edw. J.....L
 1768 Fulton, Levi R.....L 1846 Smith, Wm. C.....L
 1848 Gutzen, John A.....L 1815 Herb, JosephL
 166 Dorn, Byron.....A

WATERFORD—Racine Co.

640 Moe, ChasR 655 Palmer, N. H.....R
 987 Noll, Louis.....R 103 Moe, GeoA
 192 Noll, Louis L.....A

WHITEWATER—Walworth Co.

55 O'Connor, F. M.....R 56 O'Connor, H. J.....R
 1597 Nichols, W. L.....L 1657 Duffin, Lucien A.....G
 1819 Thorpe, Will R.....L 735 White, H. KirkA

WHITEHALL—Trempealeau Co.

55 Parker, W. EM 452 McNaughton, D. J.....A

WINNECONNE—Winnebago Co.

1310 Knudson, KR 1519 Melcher, W. A.....L

WILMOT—Kenosha Co.

176 Thompson, J. F.....R

WILTON—Monroe Co.

347 Martin, T. L.....R

WILD ROSE—Marathon Co.

861 Smart, Chas. A.....R

WILSON—St. Croix Co.

253 Williams, B. C.....A

WITTENBERG—Shawano Co

212 Puchner, Edw.....A

WONEWOC—Juneau Co.

105 Wolfenden, C. E.....R 966 Bishop, G. W.....L

701 Schmidt, FredR 1341 Rodecker, Chas. W.....L

WRIGHTSTOWN—Brown Co.

1820 Pope, Chas. J.....L 741 Rather, Wm. A.....A

WYOCENA—Columbia Co.

809 Townsend, A. J.....R 853 Irwin, J. G.....R

854 Riker, Cyrus.....R

WINDSOR—Dane Co.

777 Haswell, Edwin L.....A

WOODRUFF—Vilas Co.

1255 Wickstrom, Edw. G.....G

WHITTLESEY—Taylor Co.

1809 Oleshak, Romuald.....L

WOODWORTH—Kenosha Co.

664 Cameron, G. L.....A

WISCONSIN REGISTERED MEN RESID- ING OUTSIDE OF STATE.

AKRON—Ohio.

1248 Krause, Henry C.....L

ALTON—Illinois.

1689 Heck, Jacob P.....L

ACKLEY—Iowa.

1472—Nix, John M.....L

ALBERT LEA—Minnesota.

176 Briggs, Chas. A.....R 477 Briggs, Geo. H.R

BELOIT—Kansas.

762 Kent, Wm. F.....R

CHICAGO—Illinois.

96 Pierson, F. G.....R	250 Read, F. D.....R
528 Stearns, W. P.....R	751 Young, Hays.....R
360 Christensen, L. A.....R	817 Parks, Fred W.....L
837 Welch, M.....R	595 Cunradi, August.....R
1102 Wangemann, A.....L	1163 Windmueller, Emil.....L
1172 Goslar, Chas.....L	1283 Ritter, John H.L
1328 Canwenberg, Jos.....L	1324 Steinmann, Gus.....G
1567 Goetsch, H. F.....L	1570 Voigt, John E.....L
1802 Hartwig, R. W.....L	1600 Ruebhausen, Oscar C.....L
1325 Stenicke, Frank.....L	1745 Cunradi, Herman.....L
1368 McKenzie, Frank E.....L	1787 Schlytern, Carl A.....L
1 Regan, J. M.....M	435 Kuehmstaedt, E. A.....A
479 Werner, Henry C.....A	483 Menge, Herman C.....A
474 Ladish, E. H.....A	537 Peck, Geo. L.....A
736 Arndt, Herman G.....A	730 Earley, E. C.....A
538 Jones, Alfred J.....A	224 Clark, Horace L.....A
655 Rossman, Edw. F.....A	721 Worm, Carl F.....A
545 Reich, Wm. F.....A	

CEDAR FALLS—Iowa.

621 Mazanti, W. C.....G

CHEYENNE—Wyoming.

1780 Behrend, Chas. W.....L 592 Brown, Frederick H.....A

COUCHINO CHINUAHUA—Mexico.

999 Rose, Robert S.....L

COLORADO SPRINGS—Colorado.

1276 Crapser, Jule H.....L

CIARINDA—Iowa.

1750 Luers, John H.....L

COLD SPRINGS—Minnesota.

1694 Wetzel, M. V.....L

DWIGHT—Illinois.

203 Broughton, R..... R

DE LAND—Florida.

1130 Allen, Wm. A.....L

DENVER—Colorado.

381 Kearns, P. J.....A

DULUTH—Minnesota.

1329 Heimann, Herman.....G 1588 Larsen, Otto F.....L

1801 Shesgreen, David, Jr.....L

DETROIT—Michigan.

1252 Wood, Louis N.....G

ESCANABA—Michigan.

1293 Voght, Edw. C.....L 1309 Ellsworth, A. Jr.....G

EAST CLALLAM—Washington.

1531 Wallschlaeger, W. C.....G

FOWLerville—Michigan.

1760 Cooper, J. Ashley.....L

FRUITDALE—Alabama.

525 Charlesworth, F. M.....R

FOREST CITY—Iowa.

1699—Ulrich, Frank X. Jr.....L

GREAT FALLS—Montana.

1673 Snyder, C. B.....L

GRAND RAPIDS—Minnesota.

1726 Dickinson, Chas. H.....L

GRAND FORKS—North Dakota.

1131 Granrud, Ole.L 1476 Ellingson, Samuel G.....L

HILLS—Minnesota.

1813 Steinsen, J. C.....L

HASTINGS—Minnesota.

1504 Lueck, Wm. C.....L

HAMILTON—Mont.

1320 Hageman, R. C.....L